

# QUADRA-FIRE®

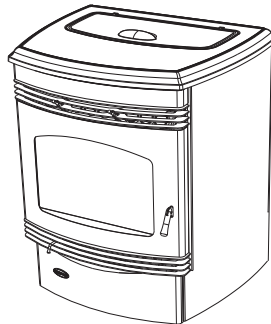
## SANTA FE PELLET STOVE

### Owner's Manual

### Installation and Operation

**Model:**

**SANTAFE-NZ-MBK**



### CAUTION



#### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



### WARNING



**Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.**

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not overfire - If any external part starts to glow, you are overfiring. Reduce feed rate. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.



### WARNING



#### HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

#### Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

#### High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other flammable materials away.

### CAUTION

Fuel Type: Wood Pellets, less than 38mm in length, 6mm to 8mm in diameter.

Burning of any other type of fuel voids your warranty.

### CAUTION

Check building codes prior to installation.

- All local regulations, including those referring to national and European standards need to be complied with when installing the appliance.
- Consult local fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.

# *Congratulations*



## **and Welcome to the Quadra-Fire Family!**

Hearth & Home Technologies welcomes you to our tradition of excellence! In choosing a Quadra-Fire appliance, you have our assurance of commitment to quality, durability, and performance.

This commitment begins with our research of the market, including 'Voice of the Customer' contacts, ensuring we make products that will satisfy your needs. Our Research and Development facility then employs the world's most advanced technology to achieve the optimum operation of

our stoves, inserts and fireplaces. And yet we are old-fashioned when it comes to craftsmanship. Each unit is meticulously fabricated and surfaces are hand-finished for lasting beauty and enjoyment. Our pledge to quality is completed as each model undergoes a quality control inspection.

We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance. Thank you for choosing Quadra-Fire.

## **IMPORTANT**

This stove must be installed and commissioned by a trained installer approved by Switch. As well as the instructions in this manual, it is also necessary to take into consideration all applicable laws and standards as well as national, regional, and local regulations relating to the appliance installation. It is the responsibility of the Installer

to commission the fire in accordance with manufacturer's instructions and provide a declaration of conformity for the installation of the appliance if required. Please read this User's Guide and Installation Manual before installing the stove.





## **WARNING**

This appliance and flue system shall be installed in accordance with AZ/NZS 2918 and the appropriate requirements of the New Zealand building code.

Appliances installed in accordance with this standard shall comply with the requirements of AS/NZS 4886 where required by the regulatory authority ie the appliance shall be identifiable by a compliance plate with the marking "tested to AS/NZS 4886".

Any modification of the appliance that has not been approved in writing by the test authority is considered to be in breach of the approval granted for compliance with AS/NZS.

## **Data Plate - found on back of fire**

<b>QUADRA-FIRE®</b> <b>SANTA FE</b> <b>Freestanding Wood Pellet Burning Heater</b>	
<small>Manufactured By:</small>  <b>HEARTH &amp; HOME</b> <small>technologies</small> <small>1445 North Highway - Colville, WA 99114 - USA</small>	
<small>Tested in accordance with AS/NZS 4886:2007 &amp; AS/NZS 5078:2007</small>	
<small>Test Report ARS:</small>	<small>11/2420</small>
<small>Ecan Authorisation Number:</small>	
<small>Expiration Date:</small>	
<small>Maximum Average heat output:</small>	<small>High: 7.1 kW</small> <small>Med: 4.8 kW</small> <small>Low: 2.8 kW</small>
<small>Overall Average efficiency:</small>	<small>74%</small>
<small>Average particulate emission factor:</small>	<small>0.2 g/kg</small> <small>(16 mg/MJ)</small>
<small>Installation Date:</small>	
<small>BURN ONLY UNTREATED WOOD PELLETS WITH A MOISTURE CONTENT OF LESS THAN 9% (dry basis).</small> <small>Ecan approved fuel: 6mm diameter complying with standard AS/NZS 4014.6.</small> <small>Performance may vary from test values depending on actual operating conditions.</small>	
<small>SERIAL NUMBER</small> <b>007034</b>	<small>1.5" x .375 Barcode Label</small>
<small>2011 2012 2013 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC</small> <small>7068-113</small>	

**Safety Alert Key:**

- **DANGER!** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- **WARNING!** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- **CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE:** Indicates practices which may cause damage to the appliance or to property.

**TABLE OF CONTENTS**

Congratulations .....	2
Warning .....	2
Sample of Safety/Serial Number Label .....	2
Safety Alert Key .....	3
Table of Contents .....	3
Limited Warranty .....	4-5

**Section 1: Specifications**

A. Glass Specifications .....	6
B. kW & Efficiency Specifications .....	6
C. Specification Table .....	6

**User's Guide****Section 2: Operating Instructions**

A. Fire Safety .....	8
B. Combustible/Non-Combustible Material .....	8
C. Fuel Material & Fuel Storage .....	8
D. General Operation Information .....	8-9
E. Before Your First Fire .....	9
F. Filling the Hopper with Fuel .....	9
G. Starting Your First Fire .....	9
H. Fire Characteristics .....	10
I. Ignition Cycles .....	10
J. Clear Space .....	10

**Section 3: Maintaining & Servicing Appliance**

A. Proper Shutdown Procedures .....	11
B. Quick Reference Maintenance Chart .....	11
C. General Maintenance & Cleaning .....	11-14
D. High Ash Fuel Content Maintenance .....	15
E. Frequently Asked Questions .....	16

**Section 4: Replacement Parts**

A. Convection Blower .....	17
B. Combustion Blower .....	17
C. Snap Disc #2 .....	18
D. Igniter .....	19
E. Baffle & Brick Removal .....	19
F. Baffle & Brick Replacement .....	20
G. Glass Replacement .....	21

**Installer's Guide****Section 5: Getting Started**

A. Design, Installation & Location Considerations .....	22
B. Draft .....	22
C. Negative Pressure .....	23
D. Thermostat Location .....	23
E. Locating Your Appliance & Flue .....	23
F. Tools and Supplies Needed .....	24
G. Inspect Appliance & Components .....	24
H. Pre-Burn Checklist .....	24

**Section 6: Dimensions & Clearances**

A. Appliance Dimensions .....	25
B. Clearance to Combustibles .....	26
C. Hearth Protection .....	27

**Section 7: Flueing Information**

A. Chimney and Exhaust Connection .....	28
B. Outside Air Kit Instructions .....	28
C. Internal Standard Flue Kit .....	29
D. External Standard Flue Kit .....	30

**Section 8: Reference Material**

A. Commissioning .....	31
B. Component Function .....	31

**Section 9: Troubleshooting**

A. Troubleshooting .....	34-36
--------------------------	-------

Service Parts List .....	37-40
--------------------------	-------

Service and Maintenance Log .....	41-42
-----------------------------------	-------

Homeowner Notes .....	43
-----------------------	----

Contact Information .....	44
---------------------------	----

**Hearth & Home Technologies Inc.  
LIMITED LIFETIME WARRANTY**

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

**WARRANTY COVERAGE:**

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

**WARRANTY PERIOD:**

Warranty coverage begins on the date of installation. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

**WARRANTY CONDITIONS:**

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

**WARRANTY EXCLUSIONS:**

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets; firebricks; grates; flame guides; and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

**This warranty is void if:**

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

**LIMITATIONS OF LIABILITY:**

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

# 1 Specifications

## A. Glass Specifications

This appliance is equipped with 5mm ceramic glass. Replace glass only with 5mm ceramic glass. Please contact your dealer for replacement glass.

## B. kW & Efficiency Specifications

kW input will vary, depending on the brand of fuel you use in your stove. Consult your dealer for best results.

*NOTE: Hearth & Home Technologies, manufacturer of this appliance, reserves the right to alter its products, their specifications and/or price without notice.*

**WARNING! Risk of Fire!** Hearth & Home Technologies disclaims any responsibility for, and the warranty and agency listing will be voided by the below actions.

### DO NOT:

- Install or operate damaged appliance
- Modify appliance
- Install other than as instructed by Hearth & Home Technologies
- Operate the appliance without fully assembling all components
- Over fire
- Install any component not approved by Hearth & Home Technologies
- Install parts or components not Listed or approved
- Disable safety switches

*Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.*

*For assistance or additional information, consult a qualified installer, service agency or your dealer.*

## C. Specification Table

Classification	Testing Standard	Description
Class 1 IP-20	Efficiency AS/NZS 5078:2007 Appliance AS/NZS 4886:2007	Residential Wood Pellet Heater
Voltage 220-240 volts	Current 0.7-2.0 Amps	Frequency 50Hz
Max Power Requirement 450 Watts	Weight 120kg with full hopper	Hopper capacity 20kg
High	Medium	Low
Mean flue gas temp 189°C	Mean flue gas temp 166°C	Mean flue gas temp 110°C
Fuel consumption 1.9kg/hour	Fuel consumption 1.4kg/hour	Fuel consumption 0.7kg/hour
Heating power output - 7kW	Heating power output - 5.2kW	Heating power output - 2.7kW
Average particulate emissions (dry weight) 0.4g/kg	Average emission rate 25mg/MJ	Average efficiency 71%
Gross Calorific value of pellets (dry weight) 20.1MJ/kg	Fuel type Wood pellets -6mm Ø - complying with draft standard AS/NZS4014.6:2008	



# User's Guide

## 2 Operating Instructions

### WARNING



#### **HOT SURFACES!**

Glass and other surfaces are hot during operation AND cool down.

#### **Hot glass will cause burns.**

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as appliance.
- Alert children and adults to hazards of high temperatures.

#### **High temperatures may ignite clothing or other flammable materials.**

- Keep clothing, furniture, draperies and other flammable materials away.

**NOTICE:** If you expect that children may come into contact with this appliance, we recommend a barrier such as a decorative screen. See your dealer for suggestions.

***WARNING! Do not operate appliance before reading and understanding the operating instructions in the Owner's Manual. Failure to operate appliance according to operating instructions could cause fire or injury.***

## A. Fire Safety

To provide reasonable fire safety, the following should be given serious consideration:

- Install at least one smoke detector and CO monitor on each floor of your home.
- Locate detectors away from the heating appliance and close to the sleeping areas.
- Follow the detector's manufacturer's placement and installation instructions and maintain regularly.
- Conveniently locate a fire extinguisher to contend with small fires.
- In the event of a hopper fire:
  - Evacuate the house immediately.
  - Notify fire department.

## B. Combustible/Non-Combustible Materials

### • **Combustible Material**

Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame-proofed or not, plastered or unplastered.

### • **Non-combustible Material**

Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, slate, glass or plasters, or any combination thereof.

### • **Non-combustible Sealant Material**

Sealants which will not ignite and burn: CRC Maniseal Exhaust Cement, High Temperature Silicone (TRV) Sealant (or equivalent).

## C. Fuel Material and Fuel Storage

Pellet fuel quality can greatly fluctuate. We recommend that you buy fuel complying with the wood pellet standard AS/NZS 4014.6:2008. However, we do recommend trying various brands before purchasing multi-ton lots to ensure your satisfaction.

### Fuel Material

- Made from sawdust or wood by-products
- Depending on the source material it may have a high or low ash content.

### Higher Ash Content Material

- Hardwoods with a high mineral content
- Fuel that contains bark
- Standard grade pellets and high ash pellets

### Lower Ash Content Material

- Softwoods
- Fuels with low mineral content
- Premium grade pellets

### Clinkers

Minerals and other non-combustible materials such as sand will turn into a hard, glass-like substance called a clinker when heated in the firepot.

Trees from different areas will vary in mineral content. That is why some fuels produce more clinkers than others.

### Moisture

Always burn dry fuel. Burning fuel with high moisture content takes heat from the fuel and tends to cool the appliance, robbing heat from your home. Damp pellet fuel can clog the feed system.

### Size

- Pellets are either 6 or 8mm in diameter
- Length should be no more than 38mm
- Pellet lengths can vary from lot to lot from the same manufacturer
- Due to length variations, the flame height (feed rate) may need adjusting occasionally. See **page 10** for instructions.

### Performance

- Higher ash content requires the ash drawer to be emptied more frequently
- Hardwoods require more air to burn properly
- Premium wood pellets produce the highest heat output.
- Burning pellets longer than 38mm can cause an inconsistent fuel feed rate and/or missed ignitions.

### Storage

- Wood pellets should be left in their original sealed bag until using to prevent moisture absorption.
- Do not store any pellet fuel within the clearance requirements or in an area that would hinder routine cleaning and maintenance.

## D. General Operating Information

### 1. Turning On/Off

The fire has two switches on the back of the fire one to turn the fire on and off the second is the heat output control (see "Figure 9.1" on page 9). To turn the fire on press the ON/OFF switch to the on position the fire will then go through its start-up sequence.

The fires also have the option of a room thermostat, when the thermostat calls for heat, the fire will automatically light and deliver heat.

When the room is up to temperature and the thermostat is satisfied, the appliance will shut down (not recommended for older drafty houses)



## 2. Heat Output Controls

This appliance is equipped with a heat output control switch that has three settings or burn rates; low, medium and high. "Figure 9.1"

The fire will start up and run on high for 15 minutes to warm the flue and then run as the burn rate for which it is set. If the appliance is set at one of the lower settings, it will run quieter but take longer to heat up an area than if it were set at a higher burn rate.

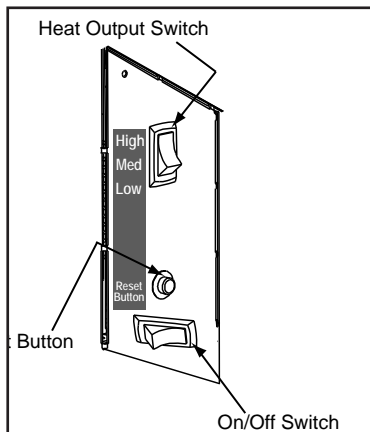




Figure 9.1

	<h3>WARNING</h3>
	<p><b>Fire Hazard.</b> Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.</p> <ul style="list-style-type: none"> <li>• Do NOT store flammable materials in the appliance's vicinity.</li> <li>• DO NOT USE GASOLINE, LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER.</li> <li>• DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.</li> <li>• DO NOT USE CHEMICALS OF FLUIDS TO START THE FIRE.</li> <li>• Keep all such liquids well away from the heater while it is in use.</li> <li>• Combustible materials may ignite.</li> </ul>

## E. Before Your First Fire

1. First, make sure your appliance has been properly installed and that all safety requirements have been met. Pay particular attention to the fire protection, venting and thermostat installation instructions.
2. Double check that the ash drawer and firebox are empty!
3. Close the front door.

**NOTE:** The tip of the thermocouple must be in contact with the inside end of the thermocouple cover or missed ignitions can occur.

## F. Filling the Hopper with Fuel

1. Lift up the hopper lid and lock into open position. Now you can fill the hopper with fuel.
2. Do not over fill the hopper. The lid must be completely closed to maintain proper vacuum and for the feed motor to operate.
3. The hopper switch is designed to shut down the feed motor when the hopper lid is open.
4. Do not leave any part of the fuel bag on the appliance after refilling hopper.
5. Store fuel away from the appliance to maintain proper safe air clearance to combustibles.

## G. Starting Your First Fire

1. Make sure the hopper is full of pellets and the ON/OFF switch is in the OFF position. Plug the fire into a power socket
2. When powered up the exhaust blower will stay on for approximately 18 minutes even though there is no call for heat. This is normal.
3. Locate the heat output control switch mounted on the back of the appliance in the upper left corner (Figure 9.1).
4. Turn it to the "high" setting by pushing the top of the control switch in.
5. Turn the fire on using the On/Off switch
6. Look through the rear panel and you will see the red call light on the control box will be on. This indicates there is a call for heat.
7. The fuel feed system and the igniter should now be on.
8. For your first fire it will be necessary to press the reset button once approximately two minutes after start up and again in five minutes. This will fill the feed system and allow the appliance to begin dropping pellets. Or you can put a handful of pellets in the firepot to speed up the process. The appliance will continue to run as long as there is a call for heat.
9. Once the appliance has ignited, let it burn for approximately 15 minutes. For commissioning the installer/technician will then need to set the draft on the fire (see "Reference Materials" on page 30) You can now adjust the heat output control switch to the desired setting.

## H. Fire Characteristics

A properly adjusted fire with the heat output control switch set on "high" has a short active flame pattern that extends out of the firepot approximately 102 to 203mm. The flame will rise and fall somewhat. This is normal.

If the fire has tall flames with black tails and seems somewhat lazy, this indicated insufficient air for the volume of fuel being burnt. Check the fire is clean, the air intake is clear and seals are intact.

## I. Ignition Cycles

1. At the beginning of each ignition cycle, it is normal to see some smoke in the firebox. The smoke will stop once the fire starts.
2. The convection blower will automatically turn on after your appliance has been burning for approximately 10 minutes.
3. This blower transfers heat from your appliance into the room, and will continue to run after the thermostat has stopped calling for heat until the appliance has cooled down.
4. Occasionally the appliance may run out of fuel and shut itself down. When this happens, the red call light will be on.
5. To restart it, fill the hopper and press the reset button. When you press the reset button the red call light will go out. Release the button and the light will come back on.
6. You should see a fire shortly. If not, follow the instructions on **page 9** of "Starting Your First Fire".

### CAUTION

Odors and vapors released during initial operation.

- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.

## J. Clear Space

**WARNING! RISK OF FIRE!** Do NOT place combustible objects in front of the appliance. High temperatures may ignite clothing, furniture or draperies. Maintain a minimum clearance of 914mm in front of appliance.

**Mantel:** Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

**NOTICE:** Clearances may only be reduced by means approved by the regulatory authority having jurisdiction.

**WARNING! RISK OF FIRE!** Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.

- Do **NOT** store flammable materials in the appliance's vicinity.
- Do **NOT** use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "freshen up" a fire in this heater.

Keep all such liquids well away from the heater while it is in use as combustible materials may ignite.



### WARNING



#### Fire Risk

Do NOT operate appliance:

- With appliance door open.
- Firepot floor open.
- Cleaning slide plates open.


Do NOT store fuel:

- Closer than required clearances to combustibles to appliance
- Within space required for loading or ash removal.

# 3

## Maintaining & Servicing Your Appliance

### A. Proper Shutdown Procedure



### CAUTION

**Shock and Smoke Hazard**

- Turn down thermostat, let appliance completely cool and exhaust blower must be off. Now you can unplug appliance before servicing.
- Smoke spillage into room can occur if appliance is not cool before unplugging.
- Risk of shock if appliance not unplugged before servicing appliance.

**Follow the detailed instructions found in this section for each step listed as referenced in the chart below.**

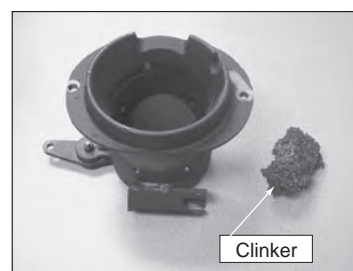
### C. General Maintenance

#### 1. Types of Fuel

Depending on the type of fuel you are burning will dictate how often you have to clean your firepot.

If the fuel you are burning has a high dirt or ash content it may be necessary to clean the firepot more than once a day.

Dirty fuel will cause clinkers to form in the firepot. A clinker is formed when dirt, ash or a non-burnable substance is heated to 1093°C and becomes glass-like. See **page 15** in this section for more details on fuels with high ash content.



**Figure 11.1 - Clinker**


### B. Quick Reference Maintenance Chart

Cleaning or Inspection	Frequency		Daily	Weekly	Monthly	Yearly
Ash Pan	Every 5 bags of fuel or more frequently depending on the fuel type or ash build-up	OR		X		
Ash Removal from Firebox	Every 5 bags or more frequently depending on the fuel type or ash build-up	OR		X		
Beneath Heat Exchanger	Every 1 ton of fuel	OR			X	
Blower, Combustion (Exhaust)	More frequently depending on the fuel type	OR				X
Blower, Convection	25 bags or more frequently depending on operating environment.	OR			X	
Door Latch Inspection	Prior to heating season	OR			X	
Exhaust Path	25 bags or more frequently depending on ash build-up	OR			X	
Firebox - Prepare for Non-Burn Season	At end of heating season	OR				X
Firepot - Burning pellets - hardwood	Every 3 bags	OR	X			
Firepot - Burning pellets - softwood	Every 5 bags	OR	X			
Glass	When clear view of firepot becomes obscure	OR		X		
Heat Exchanger & Drop Tube	Every 15 bags	OR		X		
Hopper	Every 50 bags of fuel or when changing fuel types	OR			X	
Top Vent Adapter	More frequently depending on the fuel type or ash build-up	OR				X
Venting System	More frequently depending on the fuel type	OR				X

**NOTICE:** These are recommendations. Clean more frequently if you encounter heavy build-up of ash at the recommended interval or you see soot coming from the vent. **Not properly cleaning your appliance on a regular basis will void your warranty.**

## 2. Cleaning Firepot with Cleaning Rod & Firepot Clean-Out Tool

- **Frequency:** Daily or more often as needed
- **By:** Homeowner
  - a. The appliance must be in complete shutdown and cool and the exhaust blower off. If you are just cleaning the firepot, there is no need to unplug the appliance.
  - b. Pull firepot cleaning rod OUT a couple of times to help shake debris loose. If rod is hard to pull, it may be necessary to use your firepot clean-out tool to chip away material that has built up on the bottom plate of the firepot and to push out any clinkers. Larger clinkers may have to be removed from the top of the firepot.
  - c. The firepot floor plate must be fully closed when finished.



### WARNING

**Fire Risk**

NEVER pull firepot cleaning rod or cleaning slide plates out when appliance is operating.

- The cleaning slide plates must be fully CLOSED when appliance is operating.
- Hot pellets may fall into ashpan and start a fire or mis-starts due to lack of vacuum.

## 3. Ash Removal from Firebox

- **Frequency:** Weekly or every 5 bags or more frequently depending on ash build-up.
- **By:** Homeowner
  - a. There must not be any hot ashes in the firebox during cleaning so allow the appliance to completely cool. The firebox ash should be removed every time the exhaust path is cleaned. Frequent cleaning of the ash in the firebox will help slow down the build-up of ash in the exhaust blower and vent system.
  - b. Plug in your appliance, if unplugged, and turn the thermostat on and immediately shut it off to start the exhaust blower on its cycle time. It will pull fly ash out the exhaust instead of into the room.
  - c. Open cast hinged face. Directly underneath the firebox door and to the left and right of the firepot are 2 cleaning slide plates with finger holes. Pull both slide plates out and then open the glass door. Sweep the remaining ash from the firebox into the 2 open holes. A paint brush works well for this. Close slide plates.
  - d. This ash is deposited in the same ash pan as the firepot debris. The ash pan should be emptied every time you clean the firebox. Remember to place the ash and debris into a metal or noncombustible container.
  - e. The 2 cleaning slide plates must be fully closed when cleaning is complete. **See Disposal of Ashes.**

## WARNING



### Burn Risk

- NEVER remove ash drawer while appliance is operating.

## 4. Cleaning Ash Pan/Drawer

- **Frequency:** Every 5 bags or weekly or more frequently depending on ash build-up.
- **By:** Homeowner
 


Locate the ash pan/drawer underneath the firepot. Open the bottom ash door and slide the ash pan straight out. Empty into a non-combustible container and re-install ash pan/drawer. **See Disposal of Ashes.**

## 5. Disposal of Ashes

- **Frequency:** As needed
- **By:** Homeowner
 

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal.

If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have been thoroughly cooled.



### WARNING

**Disposal of Ashes**

- Ashes should be placed in metal container with tight fitting lid.
- Ashes should be retained in closed container until all cinders have thoroughly cooled.

## 6. Cleaning Beneath Heat Exchanger

- **Frequency:** Monthly or after burning 1 ton of fuel
- **By:** Homeowner
  - a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off
  - b. A more thorough cleaning is needed to remove the excess ash that is left behind from the use of the cleaning rods for the heat exchanger tubes.
  - c. The ash will be resting on the back of the baffle. This will require removing the cast baffle.

## 7. Cleaning Heat Exchanger Chambers & Drop Tube

- **Frequency:** Weekly or every 15 bags or more frequently depending on ash build-up
- **By:** Homeowner

### WARNING

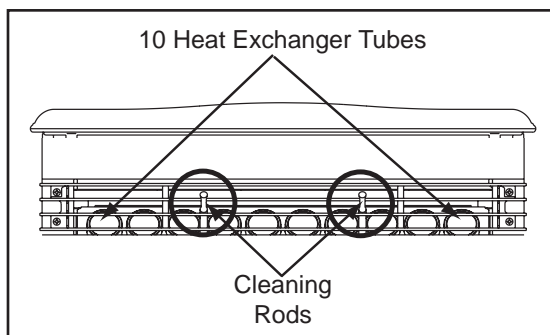
Heat exchanger cleaning rods may be warm to the touch. For safety purposes wear gloves.

Do not pull heat exchanger cleaning rods while appliance is operating.

Push cleaning rods IN when done, DO NOT leave cleaning rods OUT. Injury can occur.

The amount of ash buildup in the firepot will be a good guide to determine how often you should clean the heat exchangers.

- Allow the appliance to completely cool down before pulling the cleaning rods. Turn the thermostat on and then immediately off to start the exhaust blower on its cycle time. It will pull fly ash out the exhaust instead of into the room.
- Locate the 2 exposed rods directly underneath the heat exchanger tubes. **Figure 13.1.**
- To clean, pull the rods straight out until it stops, approximately 203mm. Slide the rods OUT and IN a couple of times.



**Figure 13.1**

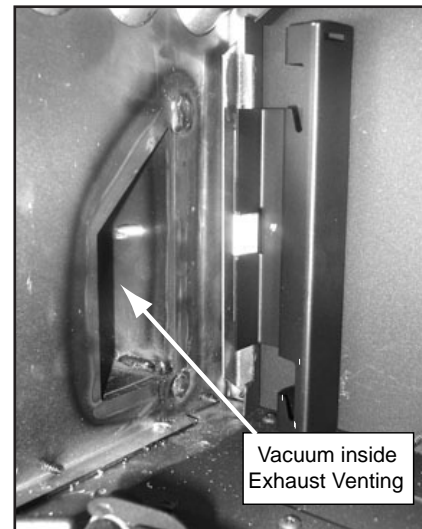
## 8. Door Latch Inspection

- **Frequency:** Prior to heating season or monthly during heating season
- **By:** Homeowner

The door latch is non-adjustable but the gasketing between the glass and firebox should be inspected periodically to make sure there is a good seal.

## 9. Cleaning the Exhaust Path

- **Frequency:** Every 25 bags or monthly or more frequently depending on ash build-up.
- **By:** Homeowner
  - Appliance must be completely cool.
  - Open cast hinge face. Remove baffle and right brick and thoroughly vacuum the area and continue throughout the rest of the firebox.
  - Replace right brick and baffle and close cast hinge face.



**Figure 13.2**

## 10. Cleaning the Hopper

- **Frequency:** Monthly or after burning 50 bags of fuel
- **By:** Homeowner

After burning approximately 1 ton of fuel you will need to clean the hopper to prevent sawdust build-up.

A combination of sawdust and pellets on the auger reduces the amount of fuel supply to the firepot. This can result in nuisance shutdowns and mis-starts.

- The appliance must be in complete shutdown. Allow the appliance to completely cool down.
- Empty the hopper of any remaining pellets.
- Vacuum the hopper and feed tube.

**NOTE:** Hearth & Home Technologies recommends to use a heavy duty vacuum cleaner specifically designed for solid fuel appliance cleaning.



**11. Soot and Fly Ash: Formation & Need for Removal in Exhaust Venting System.**

- **Frequency:** Yearly or more frequently depending on ash build-up.
- **By:** Qualified Service Technician/Homeowner

Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

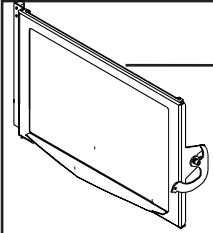
The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of the flue gases.

At start-up if there is incomplete combustion, or if there is a shutdown or incorrect operation of the appliance it will lead to some soot formation. This will collect in the exhaust venting system.

The venting (chimney) system may need to be cleaned at least once a year or more often depending upon the quality of your fuel or if there is a lot of horizontal pipe sections. Ash will build up more quickly in the horizontal sections.

**12. Cleaning the Glass**

- **Frequency:** When clear view of the firepot becomes obscure
- **By:** Homeowner
  - a. Appliance must be completely cool before cleaning glass.
  - b. Vacuum fly ash from glass and door rope.
  - c. Use a damp paper towel or any non-abrasive glass cleaner. Wipe off with dry towel.



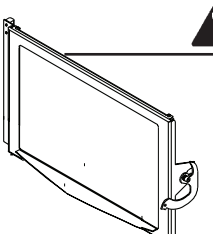
**CAUTION**

Handle glass assembly with care.

**When cleaning glass:**

- Avoid striking, scratching or slamming glass.
- Do NOT clean glass when hot.

- Do NOT use abrasive cleaners.
- Refer to maintenance instructions.



**! WARNING**

Handle glass with care.

- Inspect the gasket to ensure it is undamaged.
- Do NOT strike, slam or scratch glass.
- Do NOT operate appliance with glass assembly removed.

- Do NOT operate with glass cracked, broken or scratched.

**13. Cleaning Exhaust Blower - Requires No Lubrication**

- **Frequency:** Yearly or as needed
- **By:** Qualified Service Technician
- **Task:** Contact your local dealer

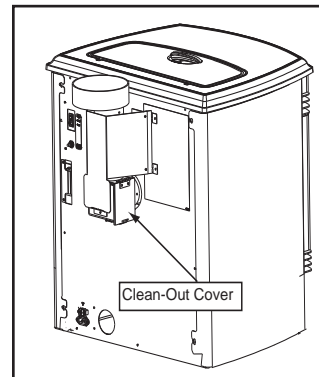
**14. Cleaning Convection Blower - Requires No Lubrication**

- **Frequency:** Yearly or every 25 bags or more frequently depending on operating environment
- **By:** Qualified Service Technician
- **Task:** Contact your local dealer.

**15. Cleaning the Top Vent Adapter**

- a. The appliance must be in complete shutdown and the exhaust blower should be off. Allow the appliance to completely cool down.
- b. Open the clean out cover. **Figure 14.1.**
- c. Sweep out any ash build-up.

**NOTE:** Hearth & Home Technologies recommends to use a heavy duty vacuum cleaner specifically designed for solid fuel appliance cleaning.



**Figure 14.1**

**16. Preparing Firebox for Non-Burn Season**

- **Frequency:** Yearly at the end of the heating season
- **By:** Homeowner
  - a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.
  - b. Remove all ash from the firebox and vacuum thoroughly.
  - c. Paint all exposed steel, including cast-iron.
    - Use the Touch-Up paint supplied with the appliance; or;
    - Purchase paint from your local dealer.
    - Must use a high-temperature paint made specifically for heating appliances.



## D. High Ash Fuel Content Maintenance

- **Frequency:** As needed
- **By:** Homeowner

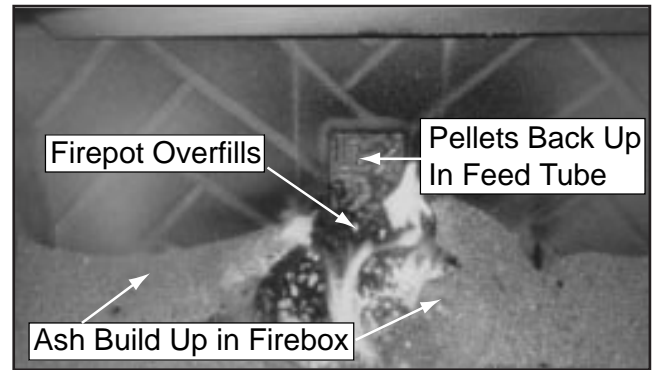
Poor quality pellet fuel, or lack of maintenance, can create conditions that make the firepot fill quickly with ashes and clinkers.

This condition makes the appliance susceptible to overfilling the firepot with pellets which may result in smoking, sooting and possible hopper fires. **Figure 15.1** shows an example where the firepot overfills, pellets back up into the feed tube and ash has accumulated in the firebox.

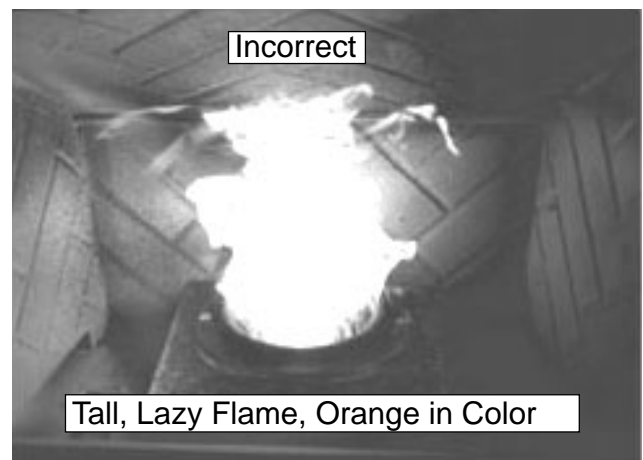
An inefficient and non-economical method of burning of fuel caused by poor quality pellet fuel is shown in **Figure 15.2**.

The correct flame size when good quality, premium pellet fuel is burned is shown in **Figure 15.3**.

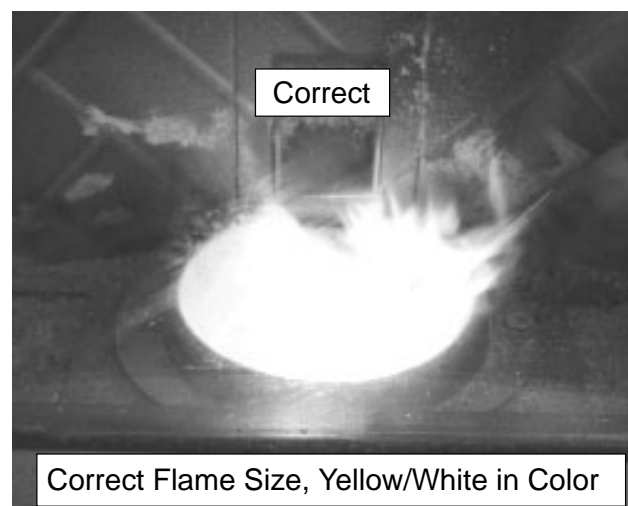
If the ash buildup exceeds the half way point in the firepot **IMMEDIATE ATTENTION AND CLEANING IS REQUIRED.**



**Figure 15.1**



**Figure 15.2**



**Figure 15.3**

### **WARNING**

#### *Fire Risk*



- High ash fuels or lack of maintenance can cause the firepot to overfill. Follow proper shutdown procedure if ash buildup exceeds half way point in firepot.
- Failure to do so could result in smoking, sooting and possible hopper fires.

### **CAUTION**

Odors and vapors released during initial operation.

- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.

**E. Frequently Asked Questions**

<b>ISSUES</b>	<b>SOLUTIONS</b>
Metallic noise.	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a log fire. This noise does not affect the operation or longevity of your appliance.
White ash buildup on glass.	This is normal. Clean the glass.
Glass has build-up of black soot.	Excessive build up of ash. See solution #4. The lower burn settings will produce more ash, the higher burn settings produce less. The more it burns on low the more frequent cleaning of the glass is required.
Fire has tall flames with black tails and is lazy.	The firepot, exhaust blower, exhaust path or baffles needs cleaning.
Smokey start-up or puffs of smoke from the airwash.	The firepot is dirty. Check the air holes have not been blocked with clinker this can be removed using the supplied tool
Large flame at start-up.	This is normal. Flame will settle down once the fire is established.
Rumbling sound.	Make sure the ash drawer is completely closed.

## 4 Replacement Parts

### A. Convection Blower Replacement

1. Turn down the thermostat, let appliance completely cool and then unplug appliance before servicing.
2. The Convection Blower is located on the floor at the rear of the appliance.
3. Remove the right side curtain by loosening 7/16" nut in the back and lift off of the appliance. When re-installing flex curtain to re-attach. **Figure 17.1.**
4. Cut the tie wire holding the wires together and then disconnect the red and black wires.
5. Remove wingnut and hold-down bracket and then remove blower.
6. Re-install in reverse order.
7. Attach new tie wire to hold wires together.

*NOTE: Any warranty on the fire or its parts is void if damage is caused during maintenance, or if maintenance is done incorrectly.*

### B. Combustion Blower Replacement

1. Turn down the thermostat, let appliance completely cool and then unplug appliance before servicing.
2. Remove both side curtains. **Figure 17.1.**
3. Disconnect the red and black wires from the white and blue wires from the exhaust blower.
4. There is a removable plate on the exhaust blower. Using a 1/4" socket or short standard screwdriver loosen the 6 screws in the keyhole shaped holes and rotate the plate. **Figure 17.4.**
5. Remove the exhaust blower and gasket.
6. Re-install in reverse order.

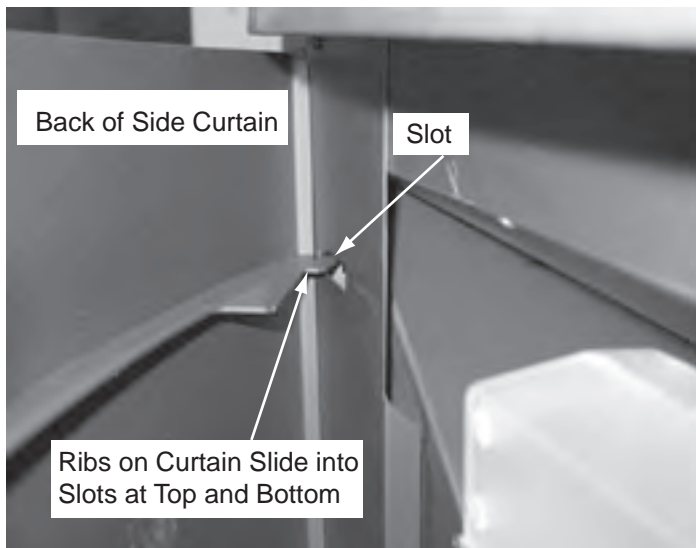


Figure 17.1

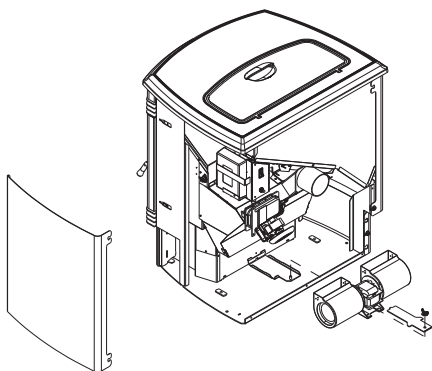


Figure 17.2

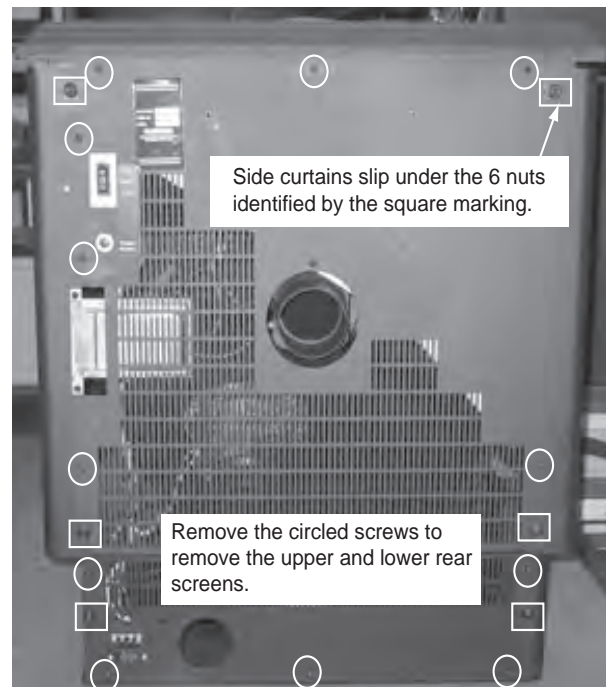


Figure 17.3

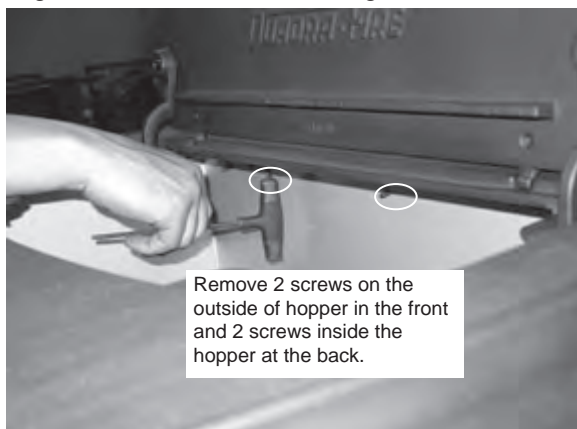


Figure 17.4

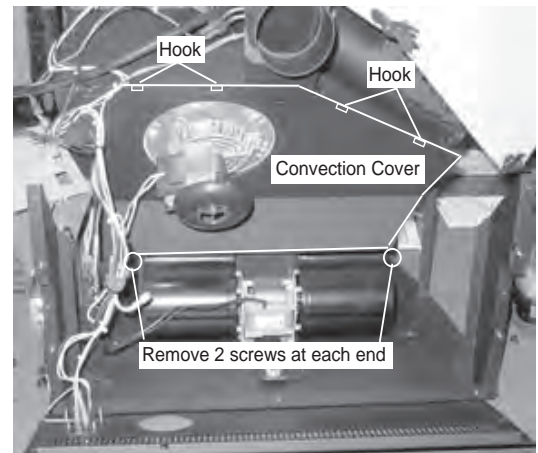
### C. Snap Disc #2 Replacement

**NOTE:** Combustion Blower Gasket is also required. Sold separately under Part Number 240-0812.

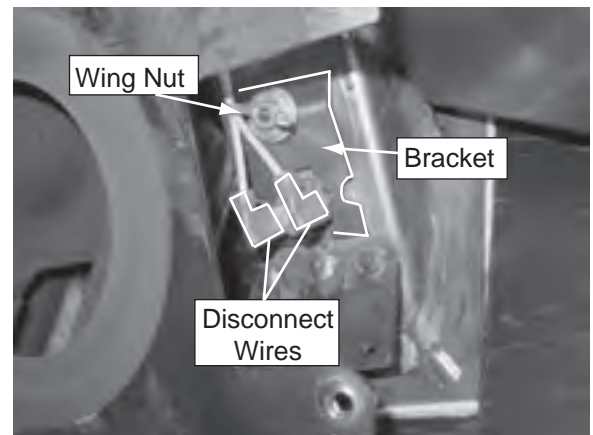
1. Turn down thermostat, let appliance cool completely if running. Then unplug appliance before servicing. Disconnect appliance from venting at the rear of appliance.
2. Remove both upper and lower side curtains by removing the six 7/16" nuts on the rear of the appliance.
3. Disconnect the vacuum hose and wires from the vacuum switch. Disconnect the blue and white wires from the combustion blower. Remove control box retainer clip. Remove two screws that hold the junction box. Set aside carefully. Disconnect hopper switch.
4. Remove cast top from appliance. Two fasteners are located outside the hopper on each side. The other two are located in the hopper along the back. **Figure 18.1.** Remove the rear screen of the appliance (be sure the vent is disconnected) by removing the seven screws. Lift slightly upwards as to not damage the hopper switch and set aside.
5. Remove lower screw by removing five screws. Lay flat on ground.
6. Remove convection cover by removing the two screws at the bottom (one each side) and slide to the left, then set aside.
7. Remove the five 7/16" bolts holding the combustion blower housing to the exhaust plenum. Discard gasket. (Clean blower impeller and plenum if needed).
8. Disconnect wires from snap disc #2. **Figure 18.3.**
9. Loosen wing nut to relieve the pressure on snap disc from the bracket. The shaded area of the snap disc is inserted into a hole in the feed tube. **NOTE:** You may need pliers to start the wing nut. **Figure 18.4.**
10. When bracket is loose enough, rotate the bracket counterclockwise and away from feed tube. **Figure 18.5.**
11. Reach behind bracket and remove old snap disc. Install new snap disc and rotate back to original position ensuring the snap disc is inserted in the hole in the feed tube. Tighten the wing nut and re-attach the wires to the new snap disc.
12. Re-install in reverse order. Be sure to use new gasket when installing combustion blower housing.



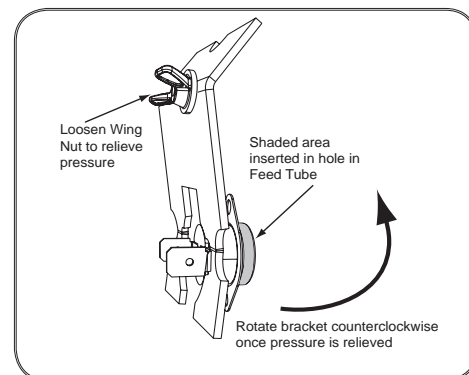
**Figure 18.1**



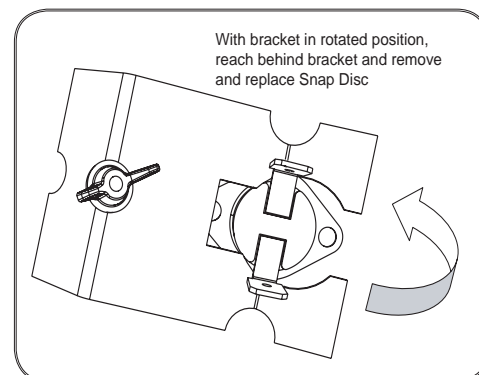
**Figure 18.2**



**Figure 18.3**



**Figure 18.4**



**Figure 18.5**

## D. Igniter Replacement

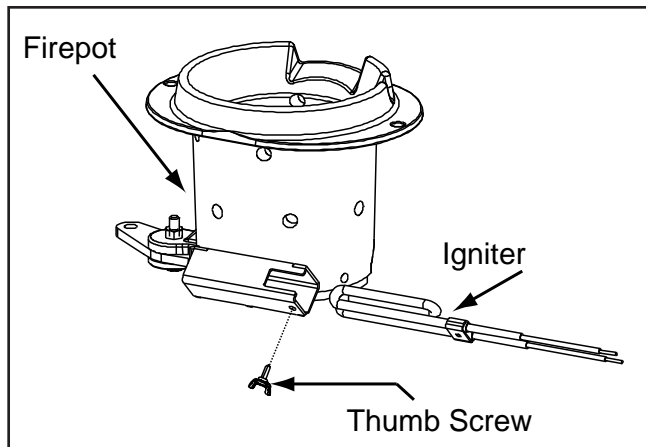


Figure 19.1

1. Shut down the appliance by turning down the thermostat and let the appliance completely cool down. After the appliance has cooled down, unplug it and remove the ash drawer.
2. The wire leads to the igniter are connected to the wire harness with 1/4 inch male / female spade connectors. Disconnect the spade connections and remove the igniter from the chamber. Loosen thumb screw and slide igniter out.
3. Install new igniter into the chamber and tighten thumb screw. Re-connect the wires to the 2 leads with the spade connectors.
4. Double check that the igniter wires are clear of any movement, i.e. ash drawer, firepot cleaning rod, cleaning slide plates, etc.
5. Re-install the ash drawer and side panel and re-connect the power.

## E. Baffle & Brick Set Removal

1. Follow proper shutdown procedures in Section 10.
2. The top baffle has a hook on the bottom left side that rests on the top lip of the cast brick. There is a tab on the bottom right side that hooks into the side bracket. Remove the top baffle by first pulling the baffle forward until back edge drops down. Then slide baffle back until the front edge clears the shelf that it had been resting on. **Figure 19.2.**
3. The top baffle must be removed before you can remove the right and left brick. Remove the right brick by holding top lip of brick and lifting up, then push outside edge back. Slide brick to the right until it is flush with the firebox. Rotate the inside edge of the brick forward and remove brick. Repeat for left brick. **Figure 19.3.**

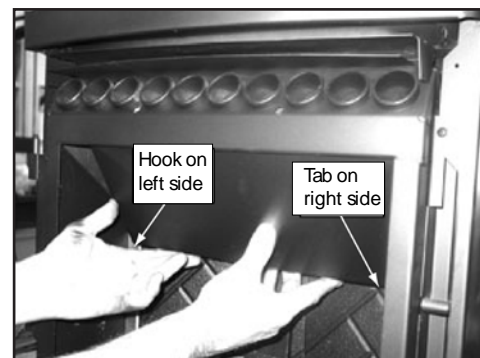


Figure 19.2

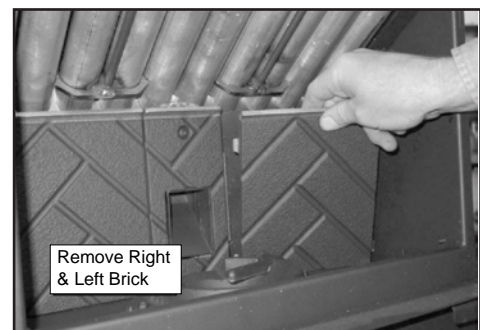


Figure 19.3

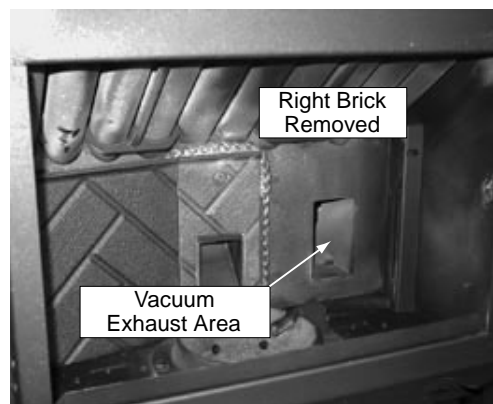
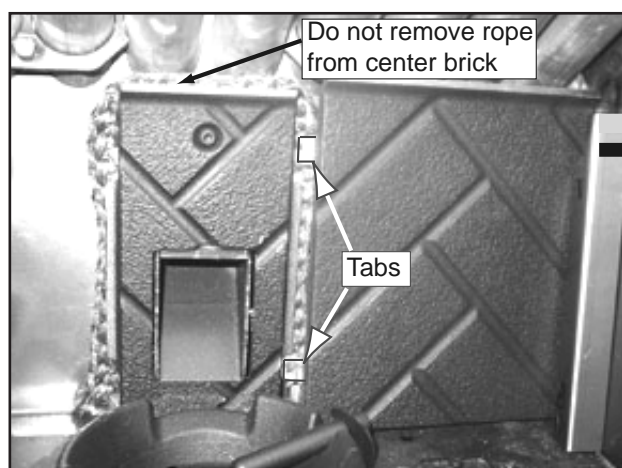


Figure 19.4

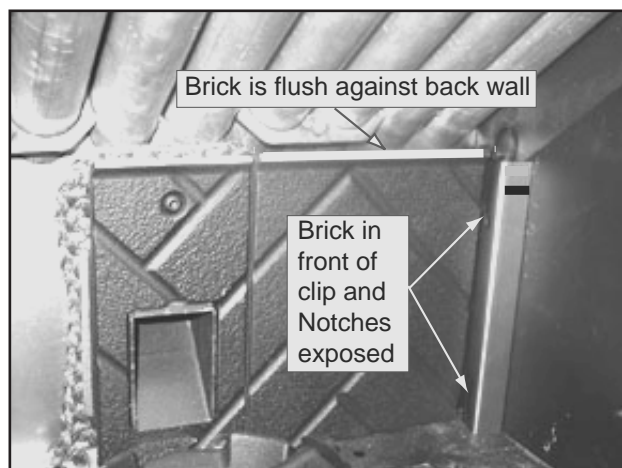


## F. Baffle & Brick Replacement

1. Place right brick in behind the right bracket and then slide to the left so the tabs are behind the center brick. **Figure 20.1.**
2. The brick will be flush against the back wall and the bracket's notches will be exposed. **Figure 20.2.**
3. Pull the right edge of the brick forward and slide the brick into the notches both top and bottom of right bracket. **Figure 20.3.**
4. Repeat for left brick.
5. Insert baffle into top front of firebox and then raise up the bottom end and insert baffle tab into notch on the right bracket to lock into place. **Figure 20.5.** Place the left side hook of the bottom baffle over the top of brick for stability.
6. The baffle does not completely cover the top of the firebox. There is an opening as shown in **Figure 20.6.**



**Figure 20.1**



**Figure 20.2**



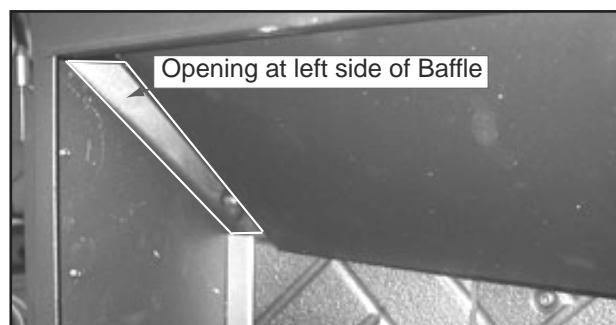
**Figure 20.3**



**Figure 20.4**



**Figure 20.5**



**Figure 20.6**



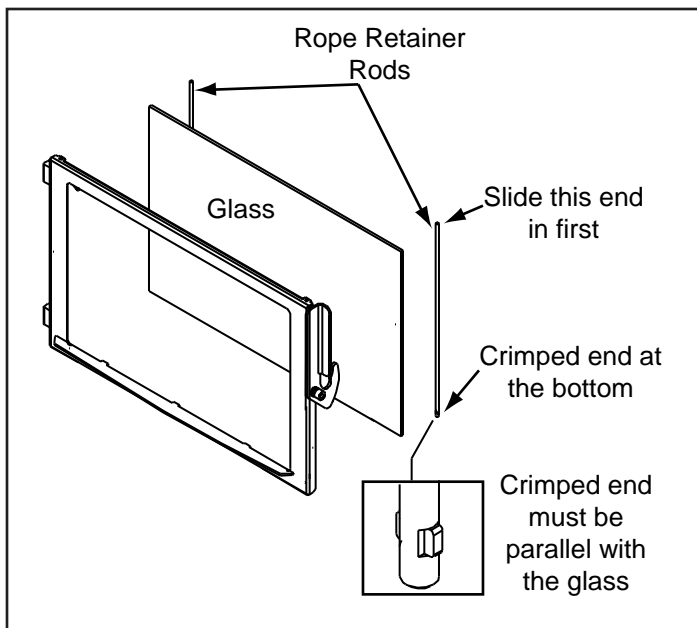
## G. Glass Replacement

### WARNING



- Glass is 5mm thick high temperature heat-resistant ceramic glass.
- DO NOT REPLACE with any other material.
- Alternate material may shatter and cause injury.

1. Open the face and remove door from the appliance by lifting door off of hinge pin and lay on a flat surface face down.
2. Using a screwdriver, tap the bottom of the rope retainer rod to push it up out of the hole. The top end of the rod will slide up. Swing the rod toward you from the bottom and remove the rod. Repeat for other side.
3. Remove old glass and replace with new glass.
4. Slide the retainer rod into the top hole first, and then line up the bottom crimped end with the hole in the door. The crimped end must be parallel with the glass in order to insert it into place. **Figure 21.1.**



**Figure 21.1**

# 5 Getting Started

## Installer's Guide

*Notice: This manual is based on North American installation requirements and some aspects may not be directly applicable to New Zealand installations. Please contact Switch (0800765 431) for more information.*

### A. Design, Installation & Location Considerations

**NOTICE:** Check building codes prior to installation.

- Installation **MUST** comply with all local building codes and regulations including those referring to national and European standards.
- Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation. Location of the appliance and chimney will affect performance.

Consideration must be given to:

- Safety, convenience, traffic flow
- Placement of the chimney and chimney connector and to minimize the use of chimney offsets.
- Place the appliance where there will be a clear passage for a Listed chimney through the ceiling and roof (vertical) or through exterior wall (horizontal).
- Installing the required outside air kit will affect the location of the vent termination.

Since pellet exhaust can contain ash, soot or sparks, you must consider the location of:

- Windows
- Air Intakes
- Air Conditioner
- Overhang, soffits, porch roofs, adjacent walls
- Landscaping, vegetation
- Horizontal or vertical vent termination

When locating vent and venting termination, the ideal location is to vent above roof line when possible. This minimizes the affects of wind loading.

**WARNING! Risk of Fire** Damaged parts could impair safe operation. Do NOT install damaged, incomplete or substitute components.

### B. Draft

Draft is the pressure difference needed to exhaust appliances successfully. When an appliance is drafting successfully, all combustion by-products are exiting the home through the flue.

Considerations for successful draft include:

- Preventing negative pressure
- Location of appliance and chimney

To measure the draft or negative pressure on your appliance use a manahelic or a digital pressure gauge capable of reading 0 - .25 inches of water column (W.C.).

The appliance should be running on high for at least 15 minutes for the test.

With the stove running on high you should have a negative pressure equal to the number given in the chart below. This can be adjusted up or down by altering the combustion fan speed adjustment on the control box (see "Commissioning" on page 31). If after adjusting the fan speed you have a lower reading than you find on the chart, your stove does not have adequate draft to burn the fuel properly.

MODEL	Minimum Vacuum Requirements
SANTAFE-NZ-MBK	0.085 inches W.C.

Correct low draft or low vacuum problems by doing one of the following:

- Thoroughly inspect and if necessary, clean the exhaust path and flue. See "Cleaning the Exhaust Path" on page 3. Inspect for worn or broken gaskets. Repair any gaskets suspected of leaking.
- Refer to "Design, Installation & Location Considerations" on page 22 for recommendations on locating your appliance and chimney and for causes of and minimizing negative pressure

*Notice: Hearth & Home Technologies assumes no responsibility for the improper performance of the flue system caused by:*

- Inadequate draft due to environmental conditions
- Downdrafts
- Tight sealing construction of the structure
- Mechanical exhausting devices

## C. Negative Pressure

**Warning! Risk of Asphyxiation! Negative pressure can cause spillage of combustion fumes and soot.**

Negative pressure results from the imbalance of air available for the appliance to operate properly. It can be strongest in lower levels of the house.

Causes include:

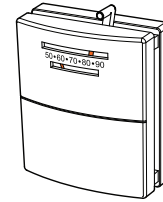
- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water heaters and other combustion appliances
- Heat transfer kits
- Clothes dryers
- Location of return-air vents to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks such as:
  - Recessed lighting
  - Attic hatch
  - Duct leaks

To minimize the effects of negative air pressure:

- Install the outside air kit with the intake facing prevailing winds during the heating season
- Ensure adequate outdoor air for all combustion appliances and exhaust equipment
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the appliance
- Avoid installing the appliance near doors, walkways or small isolated spaces
- Recessed lighting should be a “sealed can” design
- Attic hatches weather stripped or sealed
- Attic mounted duct work and air handler joints and seams taped or sealed structures, uneven roof lines and other obstructions.
- Minimize the use of chimney offsets.
- Consider the appliance location relative to floor and ceiling and attic joists.
- Take into consideration the termination requirements on **page** .

## D. Thermostat Location

1. A low voltage thermostat can be installed to operate this pellet fire. You may use the optional wall mount thermostat kit (“Figure 23.1”) or purchase a programmable thermostat, timer or remote control. The optional wall mount thermostat is equipped with an adjustable heat anticipator. The current rating is .05 amps. The anticipator needs to be adjusted to the lowest setting available.
2. When mounting a thermostat on a wall, be sure to follow your thermostat installation instructions carefully.

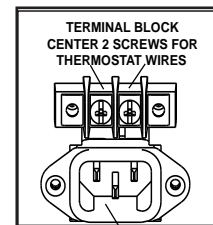


**Figure 23.1**

**NOTE:** Thermostat must be mounted level for accurate readings. The thermostat should be mounted on an inside wall, not directly in line with the appliance’s convection air and away from drafts.

**NOTE:** Thermostats are not recommended for old drafty poorly insulated house as the fire may start and stop often increasing cleaning schedules, increase power consumption and potentially reducing component life

3. There is a 4 screw terminal block located on the back lower left corner of the stove directly above the power cord inlet. The centre 2 screws are for the thermostat wires. Closing the terminals will activate the fire.



**Figure 23.2**

## E. Locating Your Appliance & Flue

Location of the appliance and flue will affect performance.

- It is recommended that you install through the warm airspace enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the affects of wind loading.
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.
- Minimize the use of chimney offsets.
- Consider the appliance location relative to floor and ceiling and attic joists.
- Take into consideration the termination requirements on **page**

### **WARNING**

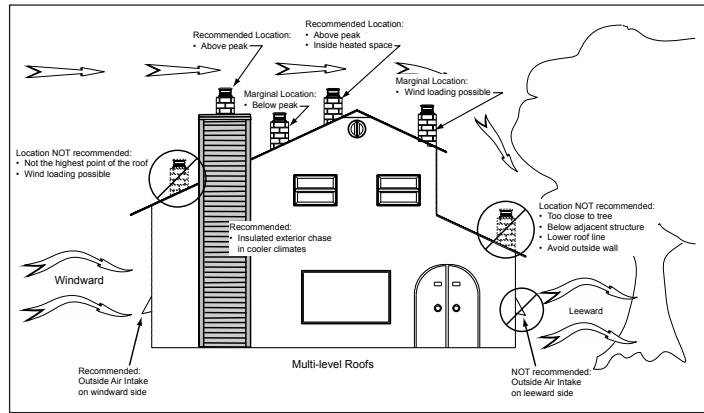


Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.

Figure for information purposes only



**Figure 24.1**

## F. Tools And Supplies Needed

**Tools and building supplies normally required for installation.**

Reciprocating Saw	7/16 inch Socket Wrench
Hammer	(or 10mm 6 pt or 11mm 6 pt socket)
Phillips Screwdriver	Framing Square
Tape Measure	Electric Drill & Bits
Plumb Line	Self-Tapping Screws
Level	Outside Air Required
Framing Material	Class L or PL Pellet Vent
Hi-temp Caulking Material	
Gloves	
Safety Glasses	<u>May also need:</u>
	Vent Support Straps



### WARNING



**Fire Risk.**

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- *Installation and use of any damaged appliance.*
- *Modification of the appliance.*
- *Installation other than as instructed by Hearth & Home Technologies.*
- *Installation and/or use of any component part not approved by Hearth & Home Technologies.*
- *Operating appliance without fully assembling all components.*
- *Operating appliance without legs attached (if supplied with unit).*
- *Do NOT Overfire or any such action that may cause a fire hazard.*

## G. Inspect Appliance and Components

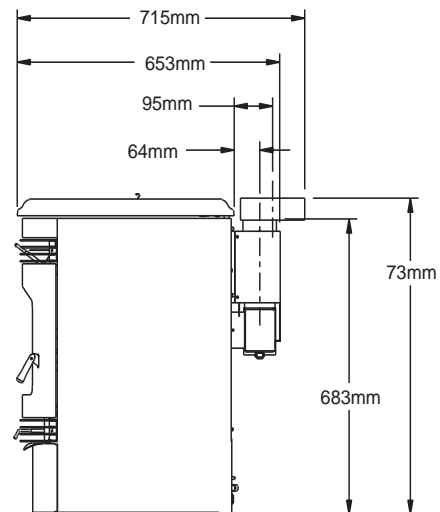
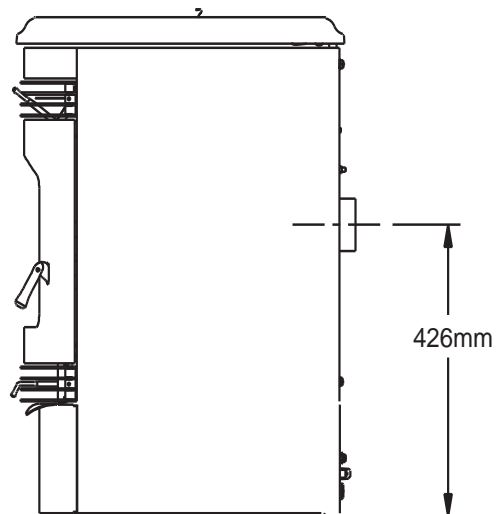
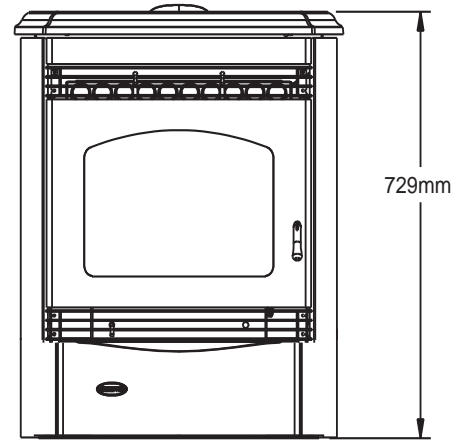
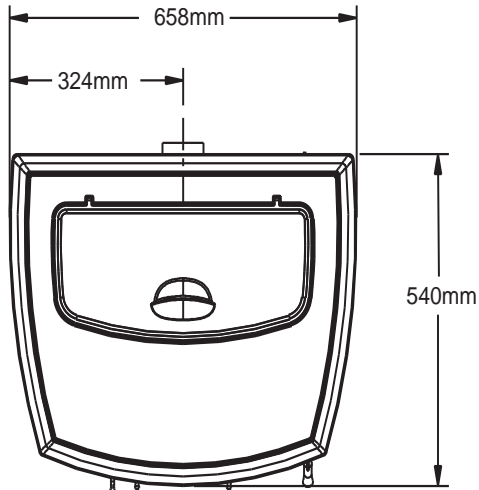
- Open the appliance and remove all the parts and articles packed inside the Component Pack. Inspect all the parts and glass for shipping damage.
- Report to your dealer any parts damaged in shipment.
- All labels have been removed from the glass door.
- Plated surfaces have been wiped clean with a soft cloth, if applicable.
- **Read all the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**
- Follow pipe manufacturer instructions for installation and air clearance requirements.

## H. Pre-Burn Check List

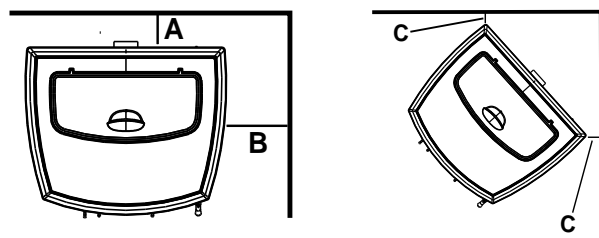
1.	Place the appliance in a location near the final installation area and follow the procedures below:
2.	Open the appliance and remove all the parts and articles packed inside the Component Pack. Inspect all the parts and glass for shipping damage. Contact your dealer if any irregularities are noticed.
3.	All safety warnings have been read and followed.
4.	This Owner's Manual has been read.
5.	Floor protection requirements have been met.
6.	Venting is properly installed.
7.	The proper clearances from the appliance and chimney to combustible materials have been met.
8.	The masonry chimney is inspected by a professional and is clean, or the factory built metal chimney is installed according to the manufacturer's instructions and clearances.
9.	The chimney meets the required minimum height.
10.	All labels have been removed from the glass door.
11.	Plated surfaces have been wiped clean, if applicable.
12.	Thermostat or remote has been installed.
13.	A power outlet is available nearby.

## 6 Dimensions and Clearances

### A. Appliance Dimensions



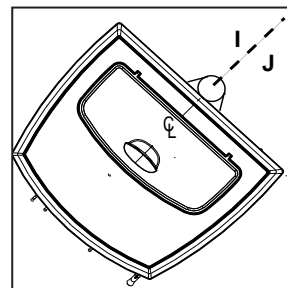
## B. Clearances to Combustibles



Straight Back Against Wall		Millimeters
<b>A</b>	Back Wall to Appliance	50
<b>B</b>	Side Wall to Appliance	160

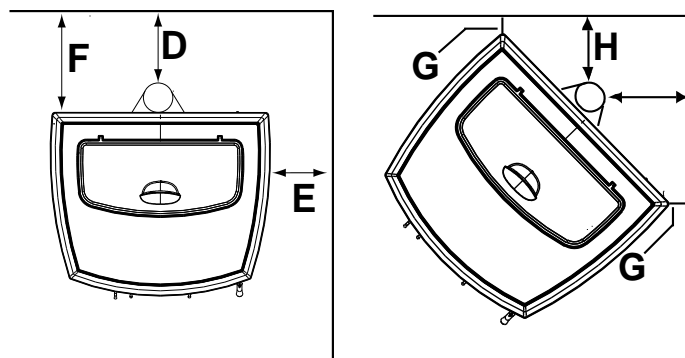
Corner Installation		Millimeters
<b>C</b>	Walls to Appliance	50

Alcove Installation		Millimeters
Minimum Alcove Height		1092
Minimum Alcove Side Wall		152
Minimum Alcove Width		965
Maximum Alcove Depth		914



Dimension to Corner		Millimeters
<b>I</b>	Flue Center Line (Santa Fe/ Castile)	217 / 264
<b>J</b>	Back of Top Vent Adapter	232

**Installations with:**  
**76mm to 76mm Top Vent Adapter and**  
**76mm to 152mm Offset Adapter**



Vertical Installation		Millimeters
<b>D</b>	Back Wall to Flue Pipe	76
<b>E</b>	Side Wall to Cast Top	152
<b>F</b>	Back Wall to Appliance	178

Corner Installation		Millimeters
<b>G</b>	Walls to Appliance	50
<b>H</b>	Side Wall to Flue Pipe	76

**WARNING**

Fire Risk.

Comply with all minimum clearances to combustibles as specified.

Failure to comply may cause house fire.

**NOTE:**

- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

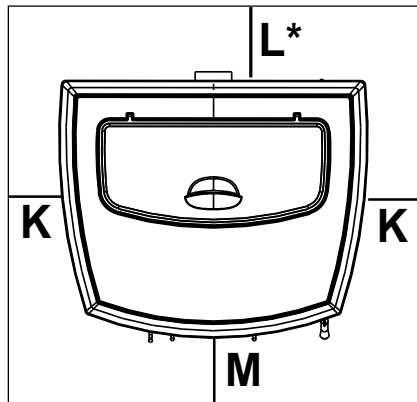


### C. Hearth Pad Requirements

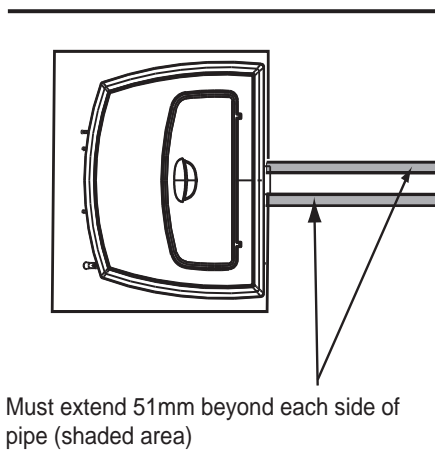
If the current flooring is made from wood, provide adequate surface protection according to the current national standards..

#### Exception for Horizontal Installations:

A non-combustible floor protection extending beneath the flue pipe is **required** with horizontal venting or under the top vent adapter with vertical installation. **Figure 27.2**



**Figure 27.1**



**Figure 27.2**

### Recommended Hearth Pad Requirements

Hearth Pad Requirements		Millimeters
<b>K</b>	Sides	50
<b>L*</b>	Back	50
<b>M</b>	Front	152

# 7 Flueing Information

## A. Chimney and Exhaust Connection

The flue must be installed by a suitably qualified person in accordance with AS/NZS2918:2001 and the manufactures instructions. The SANTAFE pellet fire range use a fan powered exhaust system with a slightly negative pressure in the combustion chamber and a slightly positive pressure in the flue.

Flue parts need to be

1. Combustion and condensation proof (stainless steel)
2. Have no restrictions or draft adjustment devices
3. Must be suitably insulated where they are outside the room the fire is located
4. Have the correct clearances from combustible materials
5. Free standing models must have a T adapter /cleanout at the connection to the fire.
6. INSTALL FLUE AT CLEARANCES SPECIFIED BY THE FLUE MANUFACTURER.
7. Secure flue system to the appliance with at least three (3) screws/rivets per the pipe manufacturer's instructions. Also secure all connector pipe joints with at least three (3) screws/rivets through each joint.
8. DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.
9. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

Switch recommends the use of Davin flu kits as outlined on page 29 and page 30. These have been tested and approved for use with the SANTAFE range of fires if you intend to use a different flue kit you will need to consult with your local council

*NOTE: Seal pipe joints with high temperature silicone , or equivalent, (250°C minimum rated only). Do not put sealant inside of pipe.*



### WARNING



Vent surfaces get HOT, can cause burns if touched. Non-combustible shielding or guards may be required.

### NOTE:

- Illustrations reflect typical installations and are **FOR DESIGN PURPOSES ONLY.**
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

## B. Outside Air Kit Instructions

There are two Outside Air Kits that will work with this appliance. One kit, 811-0872 uses a 2 inch flex hose (included) and uses hose clamps to secure the hose. The other kit, OAK-3, uses a 3 inch flex hose (not included) and uses wire ties to secure the hose.

**Parts Included in 2 inch Kit 811-0872:** 1 piece of 2 inch x 3 ft. flex hose, 2 hose clamps, 1 collar assembly, 1 termination cap assembly, trim ring, 1 intake air channel, fasteners (Discard the air intake channel, it is not needed for this appliance.

**Parts Included in 3 inch Kit OAK-3:** 2 wire ties, 1 collar assembly, 1 termination cap assembly, 1 trim ring, fasteners.

**Tools Needed:** Phillips Head screw driver; wire cutters; hole saw or jig saw, and the length of flex hose needed for your installation if using the 3 inch kit.

10. Measure distance from floor to air vent opening in appliance and mark location on wall.
11. Use saw to cut opening in wall.
  - **2 inch kit:** Cut a 2-1/2 to 3 inch opening on inside wall and a 3 to 3-1/2 inch opening on outside of house.
  - **3 inch kit:** Cut a 3-1/2 to 4 inch opening on inside wall and a 4 to 4-1/2 inch opening on outside of house.
12. Use wire tie or hose clamp depending on the Outside Air Kit to secure flex pipe to collar assembly.
13. Slide trim ring over flex pipe and run pipe through wall.
14. Attach flex pipe to outside termination cap with second wire tie or hose clamp.
15. Secure termination cap to outside surface.
16. Secure trim ring to interior wall.



### WARNING



#### Fire Risk.

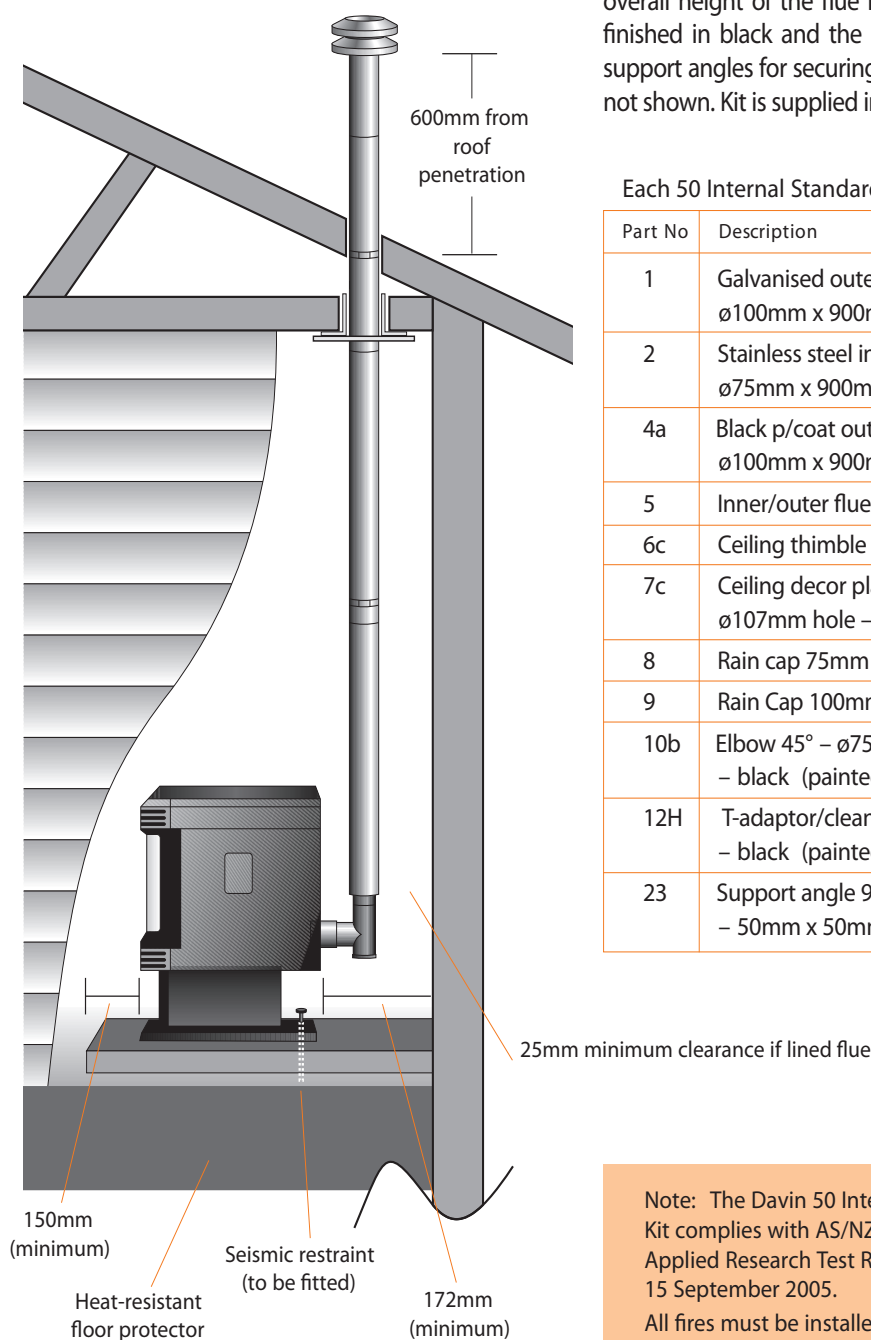
Follow Flue Manufacturer's Instructions for Proper Installation

Maintain minimum clearances to combustibles

C.

## 50 Internal Standard Flue Kit

This flue kit may be used in new and replacement applications in rooms with stud height of 2.4m. The overall height of the flue is 3.6m. The visible flue is finished in black and the ceiling plate is white. The support angles for securing the liner to the ceiling are not shown. Kit is supplied in a carton.



Each 50 Internal Standard Flue Kit contains:-

Part No	Description	Quantity
1	Galvanised outer liner ø100mm x 900mm long	1
2	Stainless steel inner liner ø75mm x 900mm long	4
4a	Black p/coat outer liner ø100mm x 900mm long	3
5	Inner/outer flue liner spacer	2
6c	Ceiling thimble ø107mm hole	1
7c	Ceiling decor plate ø107mm hole – white	1
8	Rain cap 75mm	1
9	Rain Cap 100mm	1
10b	Elbow 45° – ø75mm stainless – black (painted)	1
12H	T-adaptor/cleanout – ø75mm – black (painted)	1
23	Support angle 950mm long – 50mm x 50mm sides	2

Note: The Davin 50 Internal Standard Flue Kit complies with AS/NZS 2918:2001 as per Applied Research Test Report 05/1185, dated 15 September 2005.

All fires must be installed by a qualified installer as per the manufacturer's instructions and AS/NZS2918:2001.

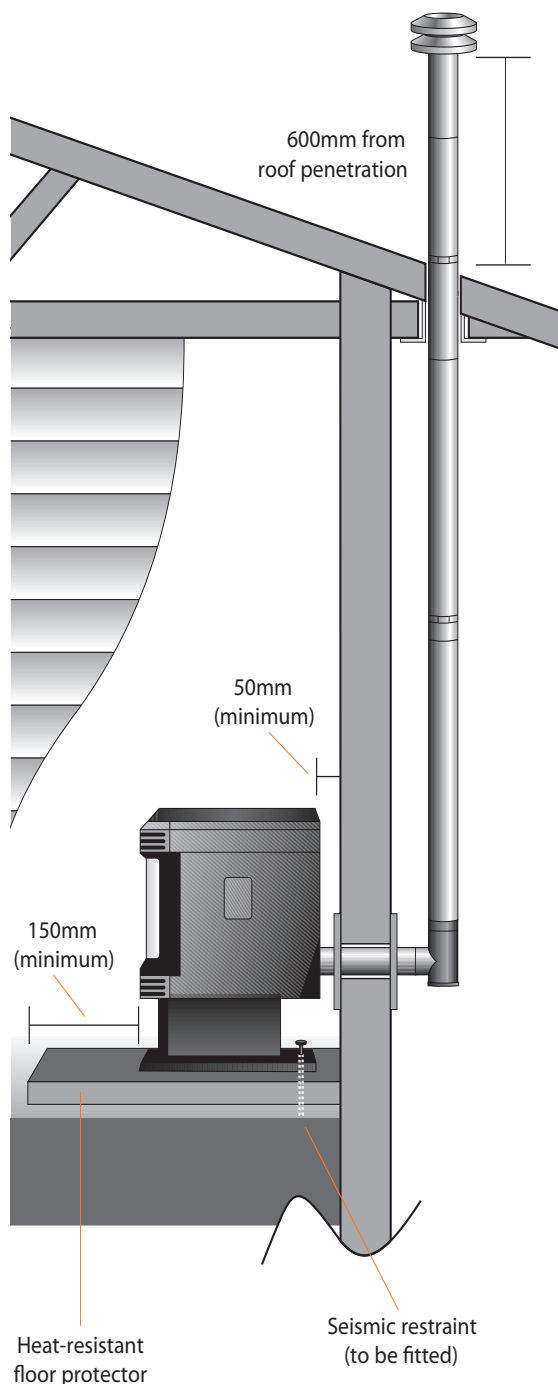
**DAVIN**

Drawing representative only - not to scale.

D.

**51**

## External Standard Flue Kit



This flue kit may be used in new and replacement applications with the flue penetrating the wall behind the fire, running vertically up an outside wall and penetrating the soffit. The overall height of the flue is 3.6m. All visible flue has a galvanised finish, and can be powdercoated on request. Kit is supplied in a carton.

Each 51 External Standard Flue Kit contains:-

Part No	Description	Quantity
1	Galvanised outer liner ø100mm x 900mm long	4
2	Stainless steel inner liner ø75mm x 900mm long	4
5	Inner/outer flue liner spacer	2
6w	Wall thimble – 2 pieces ø102mm holes	1
6s	Soffit thimble ø107mm hole	1
7w	Wall decor plate ø102mm hole – white	1
8	Rain cap 75mm	1
9	Rain Cap 100mm	1
26	Lined T-adaptor	1

Note: The Davin 51 External Standard Flue Kit complies with AS/NZS 2918:2001 as per Applied Research Test Report 05/1185, dated 15 September 2005.

All fires must be installed by a qualified installer as per the manufacturer's instructions and AS/NZS2918:2001.

**DAVIN**

# 8 Reference Materials

## A. Commissioning

Once the fire has been installed it will need to be tested and commissioned for correct running and to comply with the NZ clean air regulations. To do this you may need to alter the rotary selector switch on the top of the control box to achieve the correct Magnahelic reading, with the unit running on high (0.11 inches WC).

To adjust the Magnahelic of the fire you need to adjust the rotary switch setting on the control box.

*Do this prior to starting the fire*

- Unplug / depower the appliance.
- Using 7/16" or 11mm wrench or socket, loosen the three nuts that hold the right side panel in place. You do not need to remove the nuts. Remove side panel by lifting up and out.
- Remove the control box retainer bracket.

Start the fire on high (see "Starting Your First Fire" on page 9) and let it run for at least 15 minutes

- Unplug / depower the appliance (this can be done even when the fire is hot for a short period).
- Lift control box out of the junction box
- Using a small flat head screw driver turn the rotary switch until the desired number is showing on the dial, (default position is 2). This alters the combustion fan speed and hence the Magnahelic reading. This should increase readings from position 1(lowest) to position 7 (highest). Position 0 in not used.
- Re install control box and plug the appliance back in.

Once the power is re applied the fire will go back through its start-up process. You will need to wait at least 10 minutes to check if the Magnahelic is now correct. If not repeat the process. Experience will help judge the correct setting for the installation.



**When describing the location of a component, it is always AS YOU FACE THE FRONT OF THE APPLIANCE.**

## B. Component Function

### 1. Control Box

- a. The control box is located on the upper right side of the appliance, behind the right side panel and above the junction box.
- b. There is a light located inside of the control box. The internal light will turn green when the appliance has reached a temperature of 200°F (93°C) in the firepot and will turn red when it reaches 600°F (315°C).
- c. There is also an internal blue light located in the control box. When you plug in the appliance the blue light will automatically start blinking. For model SANTAFE the blue light should flash 6 times every 10 seconds for the first 60 seconds after power up.

### 2. Convection Blower

The convection blower is mounted at the bottom rear of the appliance. There are 2 impellers, one on each side of the motor. The convection blower pushes heated air through the heat exchange system into the room.

### 3. Exhaust Blower

The exhaust blower is mounted on the right side of the appliance. The exhaust blower is designed to pull the exhaust from the appliance and push it out through the flue system.

### 4. Feed System

The feed system is located on the right side of the appliance and can be removed as an entire assembly. The assembly includes the feed motor, mounting bracket, bearing and feed spring (auger). The hollow feed spring (auger) pulls pellets up the feed tube from the hopper area and drops them down the feed chute into the firepot.

### 5. Firepot

The firepot is made of high quality ductile iron and has a cleaning pull-out rod. The floor of the firepot opens for cleaning when you pull out the rod. Be sure that the floor returns to a completely closed position or your appliance will not operate properly.



## **6. Fuse**

The fuse is located on the side of the junction box above to the red call light. The fuse will blow should a short occur and shut off power to the appliance.

## **7. Heat Output Switch**

The heat output switch is located on the upper right back panel. The function of the heat output switch is to regulate the burn rates; low, medium and high settings.

## **8. Hopper Switch**

The hopper switch is located in the upper right hand corner of the hopper. This switch is designed to shut down the feed motor whenever the hopper lid is opened.

## **9. Igniter**

The igniter is mounted on the base of the firepot. Combustion air travels over the red hot igniter creating super heated air that ignites the pellets.

## **10. Junction Box And Wiring Harness**

The junction box is located on the lower left side of the appliance, behind the left side panel. The junction box and wiring harness are replaced as one component.

## **11. Power Supply**

The power outlet is located behind the control box on the back of the appliance, lower left corner. Check the wall receptacle for 230 volt, 50 Hz (standard current). Make sure the outlet is grounded and has the correct polarity. A good surge protector is recommended.

## **12. Red Call Light**

The red call light is on the side of the junction box, below the fuse. The function of the red call light is to indicate that the thermostat is calling for heat.

## **13. Reset Button**

The reset button is located on the back of the appliance in the upper right corner below the heat output control switch. The function of the button is to momentarily open the thermostat circuit, which restarts the system.

## **14. Thermocouple**

The thermocouple is located on top of the firepot inside the thermocouple cover (ceramic protection tube). The thermocouple sends a millivolt signal to the control box indicating the preset temperatures of the green and red lights have been obtained.

## **15. Thermostat (Optional)**

The appliance has the option to be run off a thermostat. For the The heat anticipator should be set on the lowest setting available.

## **16. Snap Disc #1 (Convection Blower) 43°C**

Snap disc #1 is located on the right side of the appliance behind the right side panel. There are 2 purple wires connected to it. This snap disc turns the convection blower on and off as needed. Power is always present at snap disc #1.

## **17. Snap Disc #2 (Fuel Delivery Interrupt) 79°C**

Snap disc #2 is located on the centre of the convection plenum above the convection blower. There is an orange and a black wire connected to it. This snap disc will turn off the feed system which will turn off the appliance if an over fire condition should occur or if the convection blower should fail to operate. If this occurs you will have to manually reset the snap disc.

## **18. Snap Disc #3 (Back Burn Protector) 121°C**

Snap disc #3 is mounted on the back of the auger tube in the centre of the appliance and has a reset button. There are two grey wires connected to it. To access it remove the right side panel. If the fire tries to burn back into the feed system or push exhaust up the feed tube, this snap disc will shut the entire system off. This disc must be manually reset.

## **19. Vacuum Switch**

The vacuum switch is located on the lower right side of the appliance behind right side panel. There are two red wires attached to it. This switch turns the feed system on when vacuum is present in the firebox. The vacuum switch is a safety device to shut off the feed motor if the exhaust or the heat exchanger system is dirty or plugged or if the firebox door is open.

## 20. Wire Harness

See "Figure 33.1" below.

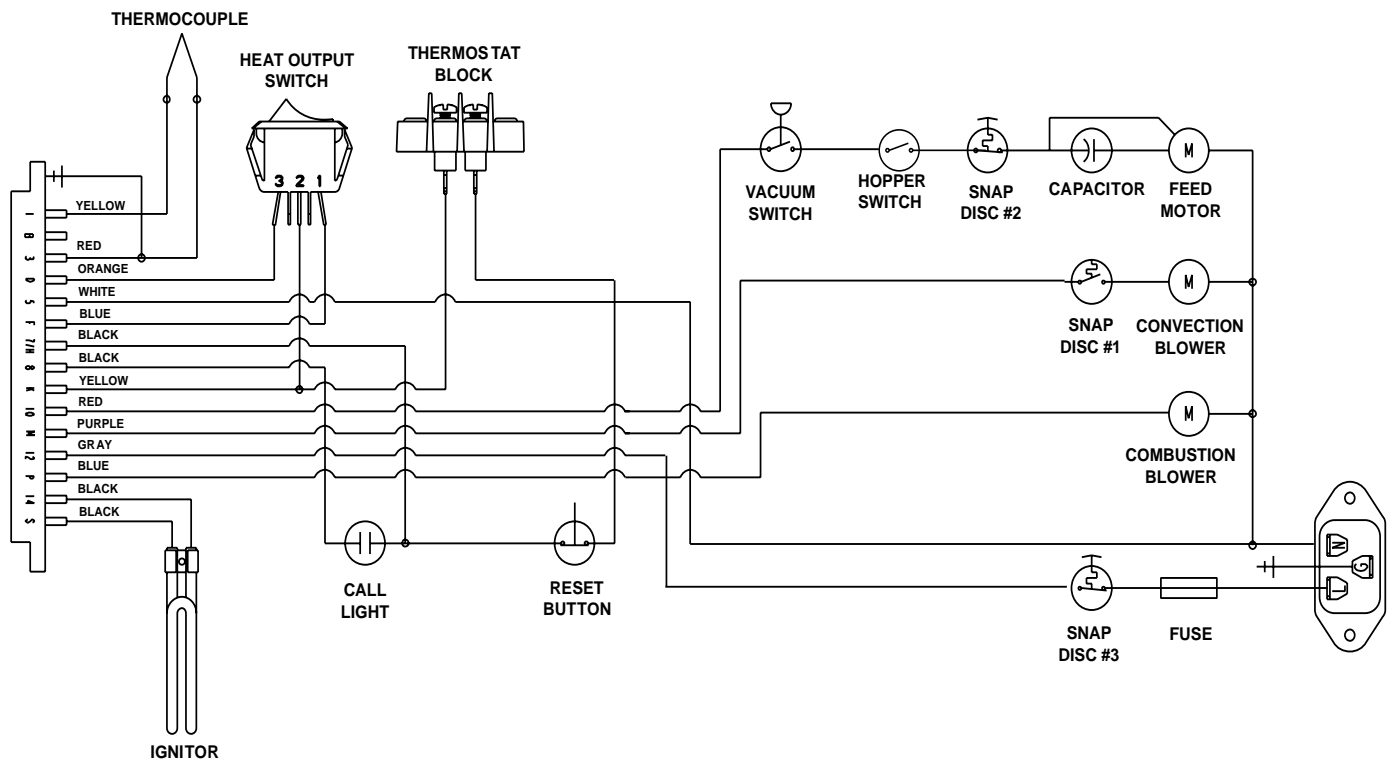


Figure 33.1

# 9 Troubleshooting

With proper installation, operation, and maintenance your appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in the diagnosis of a problem and the corrective action to be taken.

Symptom	Possible Cause	Corrective Action
Plug in appliance - No response.	No Power to outlet. 7 amp fuse defective or blown #3 snap disc tripped or defective. Control box is loose or defective.	Check circuit breaker at service panel. Replace fuse. Reset or replace snap disc. Reseat or replace control box.
Call light on. No fire. No fuel in firepot.	Out of fuel. #2 snap disc may be defective or tripped. Vacuum switch not closing, no vacuum. Hopper lid open. Defective hopper switch.  Missing or out of place hopper switch magnet. (CAB50)  Control box defective.	Check hopper. Fill with fuel. Reset or replace snap disc. Check exhaust blower is plugged in and operating. Check vacuum switch is plugged in. Check vacuum hose is in good condition, clear and connected at both ends. Check thermocouple is in good condition and plugged in properly. Make sure venting system is clean. Make sure front door is closed. Check vacuum switch fitting on back of auger tube for blockage. Replace control box. Close Hopper Lid. Check hopper switch operation. Check/adjust magnet position.
Call light on. No fire. Partially burned fuel in firepot.	Firepot is dirty (missed ignition).  Vent system plugged.  Igniter chamber blocked	Clean firepot. Make sure there is no clinker in the firepot. Close firepot bottom plate/ Clinkers may have to be broken up with firepot clean-out tool or other means. Check flue vent for obstruction Check if firepot floor is closed all the way  Clear igniter chamber using firepot clean-out tool
Call light on. No fire. Unburned pellets in firepot.	Firepot is dirty.  Igniter chamber blocked. Igniter not working.  Control box defective.  Firepot floor open.	Clean firepot. Make sure there is not a clinker in the firepot. Clinkers may have to be pushed out of firepot with firepot clean-out tool or other means. Clear igniter chamber using firepot clean-out tool.  Remove ash drawer to see if igniter is glowing red on start-up. Check igniter wires for good connection. Use a multimeter to check igniter for continuity. Replace igniter using instructions in manual.  Replace control box.
Slow or smoky start-up.	Firepot is dirty. Igniter chamber blocked. Firepot floor partially open.  Excessive amount of fuel at start-up.	Clean firepot. Make sure there is not a clinker in the firepot. Clinkers may have to be pushed out of firepot with firepot clean-out tool or other means. Check if firepot floor is closed all the way  Reduce feed rate using feed rate adjustment control rod located inside hopper. Close firepot floor. Clear igniter chamber using firepot clean-out tool.

Symptom	Possible Cause	Corrective Action
Slow or smoky start-up (Cont'd)	Dirty exhaust and/or venting system.  Wet fuel / poor quality fuel	Check for ash build up in unit, including behind rear panels, firebox, exhaust blower and venting.  Replace fuel
Feed system fails to start	Out of fuel. #2 snap disc may be defective or tripped. Vacuum switch not closing. No vacuum.      Defective vacuum switch  Feed system jammed or blocked.      Feed spring not turning with feed motor.  Feed motor defective or not plugged in.	Check hopper, fill with fuel. Reset or replace snap disc  Check vacuum fitting on auger tube for restrictions. Check door rope and replace if necessary. Check exhaust blower is plugged in and operating. Check vacuum switch is plugged in. Check vacuum hose is in good condition, clear and connected at both ends. Check thermocouple is in good condition and plugged in properly. Make sure venting system is clean. <b>NOTE:</b> High winds blowing into the venting system can pressurize the firebox causing loss of vacuum. Replace vacuum switch  Empty hopper of fuel. Use a wet/dry vacuum cleaner to remove remaining fuel, from hopper, including feed tube. Check feed chute for obstructions. Remove feed assembly & check for obstruction.  Check that set screw is tight on feed spring shaft at end of feed motor.  Check connections on feed motor, replace if defective.  Replace Thermocouple
Amber light blinking	Thermocouple may have failed. Amber light will blink 3 times, pauses, and keeps repeating	
No call light. Unit does not begin start sequence.	Thermostat not set to a high enough temperature. Snap disc #3 tripped or defective. No power. Fuse blown. Connections at thermostat and/or appliance not making proper contact.  Defective thermostat or thermostat wiring.   Control box defective.	Adjust thermostat above room temperature. Reset snap disc or replace if defective. Connect to power. Replace fuse. Check connections at thermostat and appliance. Temporarily jump connection to verify Replace thermostat or wiring. <b>NOTE:</b> To test thermostat and wiring, use a jumper wire at the thermostat block on the unit to by-pass thermostat and wiring.  Replace control box.
Unit fails to shut off.	Call light on.	Turn thermostat off. If call light does not go out, disconnect thermostat wires from unit. If call light does go out, thermostat or wires are defective.

Symptoms	Possible Cause	Corrective Action
Convection blower fails to start.	#1 snap disc defective.  Blower not plugged in.  Blower is defective or object jammed in impeller.  Control box is defective.	Replace snap disc.  Check that blower is plugged into wire harness.  Replace blower.  Replace control box.
Exhaust blower fails to start.	Blower not plugged in.  Intermittent electrical connection. Obstruction in blower.  Blower is defective.  Control box is defective.	Check that blower is plugged into wire harness. Verify fit of plug to outlet Clean exhaust system.  Replace blower.  Replace control box.
Exhaust blower does not shut off.	Control box is defective.	Replace control box.
Large, lazy flame, orange color. Black ash on glass.	Dirty appliance. Poor fuel quality, high ash content.  Excessive amount of fuel.  Control box is on the wrong setting.	Clean unit, including firepot and venting system. Clean exhaust path. Try a different brand of pellets.  Reduce feed rate using feed rate adjustment control rod located inside hopper.  "See owner's manual for correct setting for your model and how to adjust control box setting.
Nuisance shutdowns.	Low flame.  Sawdust buildup in hopper.  Feed motor is reversing.  Feed motor is weak Feed bearing adjustment Defective thermocouple.  Defective control box.  Firepot more than 1/2 full.	Increase feed by opening feed rate adjustment control rod located inside hopper.  Clean hopper, see <b>page 13</b> .  Check for good connections between feed motor and wire harness. Test feed motor torque. Adjust feed bearing Replace thermocouple.  Replace control box.  See <b>page 15</b> for detailed instructions for "High Ash Fuel Content Management" Reduce feed rate
Appliance calls for heat. Call light illuminates. Exhaust blower starts. No feed or igniter.	Thermocouple is defective or not properly plugged in.  Defective control box	Check connections on thermocouple or replace if defective. A flashing yellow light on the control box indicates a problem with the thermocouple.  Replace control box.



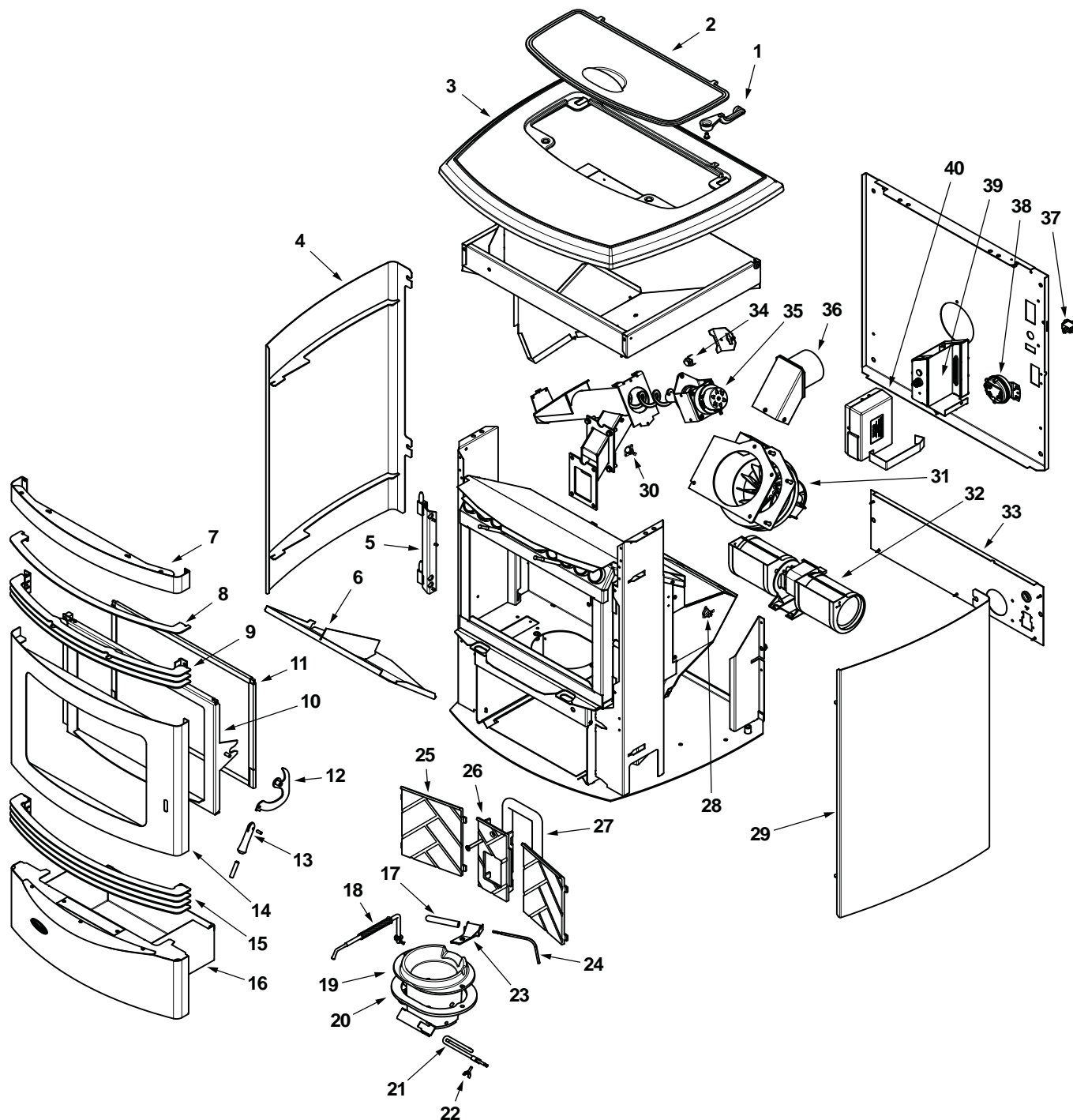
**QUADRA-FIRE®** Service Parts

Pellet Stove

**SANTAFE-NZ-MBK**

Beginning Manufacturing Date: Dec 2011

Ending Manufacturing Date: Active



Part number list on following page.

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER
1	Hopper Lid Stop		SRV7050-126
2	Hopper Lid		SRV7050-132
3	Top		SRV7050-101
4	Side Curtain Assembly, Left		SRV7068-005
5	Door Hinge Assembly		SRV7019-014
	Hinge, Door, Male		450-2810
6	Baffle Assembly		7001-034
7	Top Face Assembly		7019-047
	Lower Grille Assembly-Complete Set	Black Nickel	GRL-SFI-NB
		Nickel	GRL-SFI-NL
8	Grille Bar (Scraper), 1 Pc	Black	7019-119
		Black Nickel	7019-191
		Nickel	7019-164
9	Upper Grille Assembly- 3 Pc	Black	7019-007
		Black Nickel	7019-189
		Nickel	7019-162
10	Door Assembly		7019-013
11	Glass Assembly W/Gasket (17-1/4" W x 11-5/8" H)		7001-038
	Gasket, Tadpole, 1-1/8 x 1/2"		842-5130
	Tape, 1/2" x 1/16	10 Ft	240-0290/10
	Tape, Door Corner		SRV7027-227
	Hinge, Female		450-2910
	Retainer, Rope		7001-192
12	Door Latch Assembly		7019-015
13	Door Handle Assembly		SRV7019-037
14	Face Skin Assembly		SRV7068-009
15	Lower Grille Assembly- 4 Pc	Black	7019-008
		Black Nickel	7019-190
		Nickel	7019-163
16	Ash Drawer Assembly		SRV7068-002
17	Thermocouple Cover		812-4920
18	Pull Rod Assembly		7019-009
	Pull Rod Black Nickel		7019-172
	Spring, Firepot		200-2050
19	Firepot Assembly		SRV414-5200
20	Gasket, Firepot		240-0930
21	Igniter (Loop), 220V		812-3901
22	Wing Thumb Screw, 8-32 x 1/2	Pkg of 24	7000-223/24

Additional service part numbers appear on following page.

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER
23	Thermocouple Clamp		SRV7001-203
24	Thermocouple		812-4470
25	Brick, Left or Right, Cast		414-0270
26	Brick, Center, Cast		414-0260
	Screw, Flat Head, 1/4 -20 x 1-3/4	Pkg of 24	7000-130/24
27	Door Rope, 7/8"		842-2350
28	Snap Disc F110F-20	#1	SRV230-1220
29	Side Curtain Assembly, Right		SRV7068-004
30	Snap Disc L250F-95	#2	SRV7000-268
	Wire Harness, Snap Disc		7001-224
31	Blower Exhaust 230V		SRV7000-628
	Gasket, Exhaust Combustion Blower	Between Housing & Stove	240-0812
		Between Motor & Housing	812-4710
32	Blower Convection 230V		SRV7000-630
	Blower Magnet	Pkg of 10	7019-188/10
33	Pedestal Black		SRV7050-134
34	Snap Disc L250F Manual Reset	#3	SRV230-1290
35	Feed Assembly		SRV7068-010
	Feed Bearing		SRV7000-598
	Gasket, Feed Motor		240-0731
36	Exhaust Transition Assembly		SRV7001-009
37	Rocker Switch		230-0730
	Wire Harness On/Off Switch		SRV7068-124
38	Vacuum Switch		SRV7000-531
	Hose, Vacuum, 5/32 Id - Field Cut to Size	914.4mm, 3 Ft	SRV240-0450
39	Wire Harness		SRV7068-116
	Fuse, 7 Amp, Junction Box	Pkg of 10	812-0380/10
	Wire Harness, Hopper Switch		SRV7050-130
	Wire Harness, Snap Disc		7001-224
40	Control Board		SRV7000-654
	Component Pack		SRV7068-017
	Contains Power Cord, Firepot Cleanout Tool, Owners Manual		
	Cleanout Tool		414-1140
	Flue Adapter		SRV7027-281
	Magnet, Round		SRV7000-140
	Magnetic Switch		7000-375
	Wire Harness, Hopper Switch		SRV7050-130
	Scraper Repair Kit		SCRAPER-SF

Additional service part numbers appear on following page.

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER
<b>ACCESSORIES</b>			
	Outside Air Kit, Rear		811-0872
	Channel, Air Intake		413-7040
	Cover, Outside Air Kit, Floor		411-1071
	Hose, Alum Flex, 2 Inch X 3 Ft		200-0860
	Outside Air Cap Assembly		7001-044
	Outside Air Collar Assembly		7001-045
	Trim Plate, Outside Air Kit		412-7100
<b>Fasteners</b>			
	Avk Rivnut Repair Kit - w/1/4-20 & 3/8-16 Rivnut Tools		RIVNUT-REPAIR
	Bolt, Hex Head, 1/4-20 X 1	Pkg of 10	25221A/10
	Bumper, rubber	Pkg of 12	SRV224-0340/12
	Magnet, Round		SRV7000-140
	Nut Capped, Push, 1/4	Pkg of 24	7000-157/24
	Nut, Ser Flange Small 1/4-20	Pkg of 24	226-0130/24
	Nut , Wing 1/4-20	Pkg of 12	226-0110/12
	Nut, Wing, 8-32	Pkg of 24	226-0160/24
	Pin 3/16 x 1/2		7000-229
	Rivet , Iron 1/4 x 1-1/4	Pkg of 25	229-0090/25
	Screw, Flat Head 1/4-20	Pkg of 24	7000-130/24
	Screw, Flat Head Philips 8-32 x 1/2	Pkg of 12	220-0490/12
	Screw, Hex Washer Head Ms 1/4-20 x 3/4	Pkg of 25	220-0080/25
	Screw, Machine Screw 1/4-20 X 5/8	Pkg of 24	220-0440/24
	Screw Pan Head Philips 8-32 x 3/4	Pkg of 24	229-1100/24
	Screw Flat Head Philips 8-32 x 1/2	Pkg of 12	220-0490/12
	Screw Machine Screw 1/4-20 x 5/8	Pkg of 24	220-0440/24
	Screw Pan head Philips 8-32 x 3/4	Pkg of 24	229-1100/24
	Screw, Pan Head Philips 8-32 X 3/8	Pkg of 40	225-0500/40
	Screw, Pan Head Philips Tc 8-32 x 1/2	Pkg of 25	220-0030/25
	Screw, Pan Head Philips, 10/32 X 1/4	Pkg of 24	229-1230/24
	Screw, St 5/16-18 x 1/4	Pkg of 25	225-0550/25
	Screw, Sheet Metal #8 X 1/2 S-Grip	Pkg of 40	12460/40
	Set Crew, 5/16 x 1-1/2	Pkg of 24	7000-101/24
	Thumbscrew, 1/4-20 x 3/4	Pkg of 10	844-5070
	Washer, 1/4 Sae	Pkg of 24	28758/24
	Wing Thumb Screw 8-32 X 1/2	Pkg of 24	7000-223/24

[illegible]



### Service and Maintenance Log (Continued)

[illegible]

Homeowner Notes

# QUADRA-FIRE®

## CONTACT INFORMATION:

**Please contact your Quadra-Fire dealer with any questions or concerns.**

For the number of your nearest Quadra-Fire dealer, please visit [www.quadrafire.com](http://www.quadrafire.com)

Prior to contacting, please have the model and serial number of the unit you are calling about.

This information can be found at the rear of the unit.

### CAUTION



#### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



**We recommend that you record the following pertinent information for your SANTA FE NZ PELLET STOVE**

Date purchased/installed: \_\_\_\_\_

Serial Number: \_\_\_\_\_ Location on appliance: \_\_\_\_\_

Dealership purchased from: \_\_\_\_\_ Dealer phone: \_\_\_\_\_

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

This product may be covered by one or more of the following patents: (United States) 6830000 and 5582117 or other U.S. and foreign patents pending.

